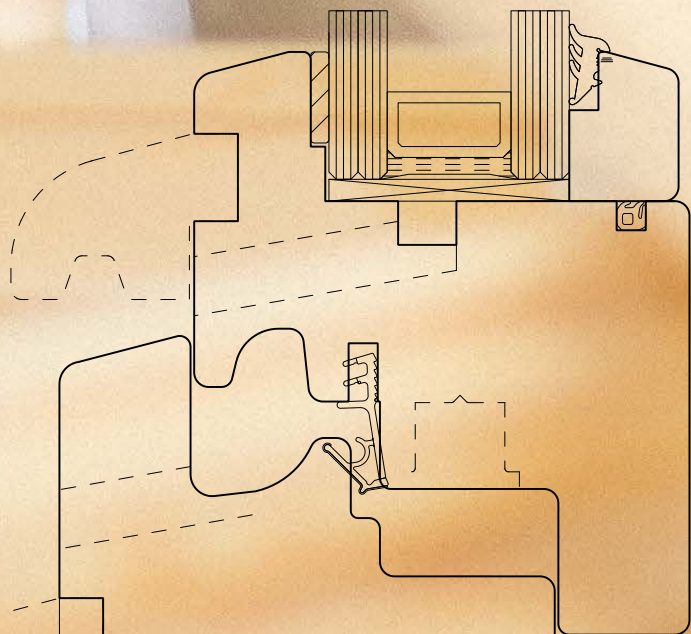
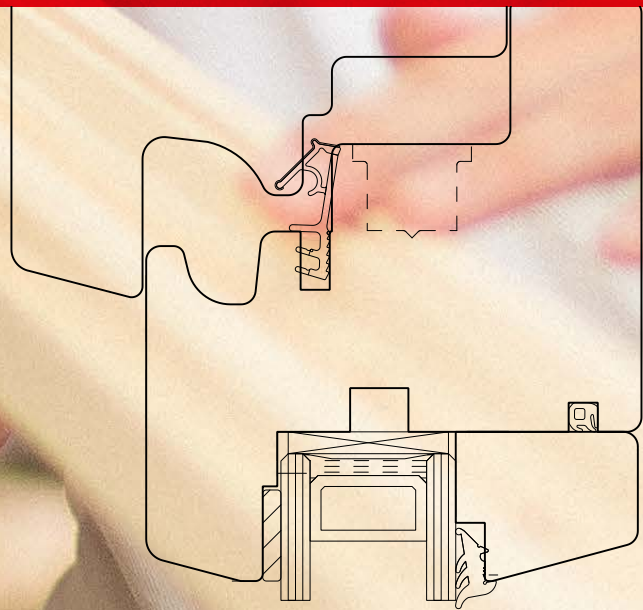
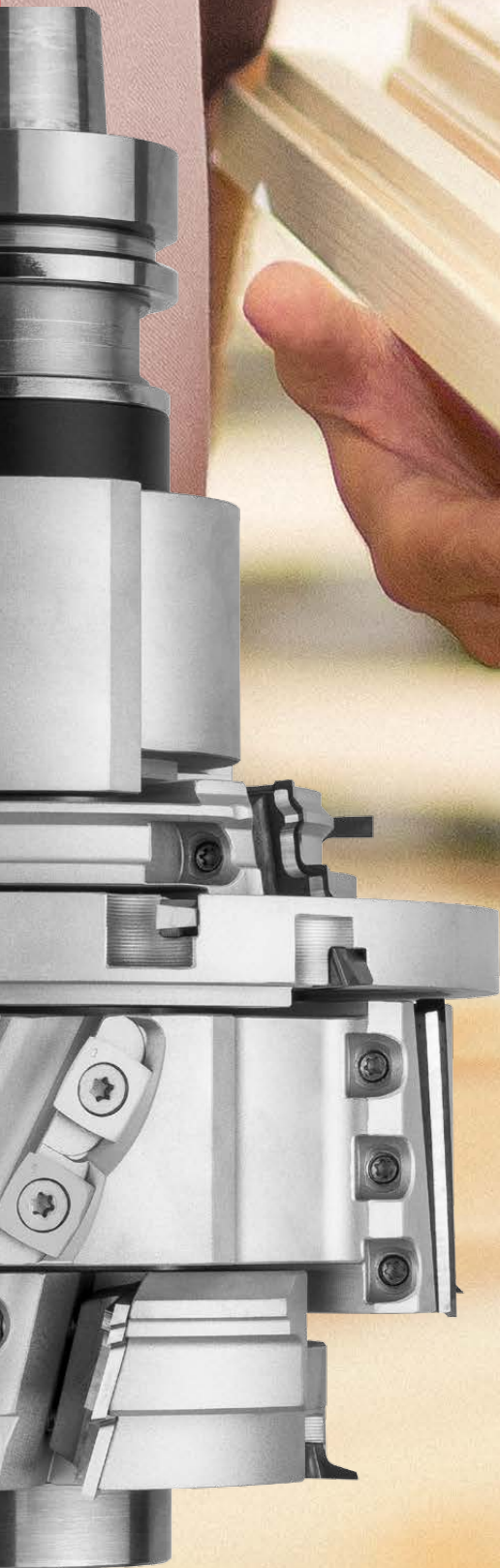


# OERTLI

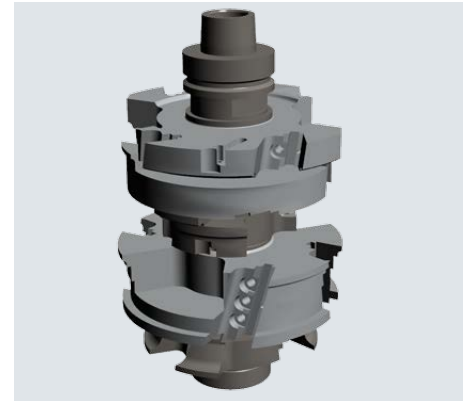
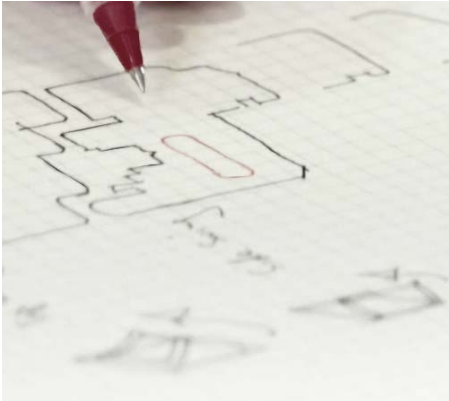


Excellence in solid wood

**OERTLI quality for your success** – Tool manufacturer and engineering partner in one.



# OERTLI Total Solution



## Window technology

Our specialists will implement your idea of a new window profile. OERTLI will check its feasibility with all partners involved.

**Profile development** OERTLI supports its customers in the development of completely new window concepts. Our experts specialise in new development and further development of new types and handle the negotiations with various suppliers as well as feasibility investigations with institutes for relevant calculations such as U-values.

**Sectional drawings** The first step and base for tool and machine concept is the definition of window types in their different sizes and versions, which is then recorded in CAD by our project managers. Correct sectional drawings are the base for all subsequent steps. The suggestions and experiences of our technical specialist will be highly relevant.

## Concept

Your goal is efficient, high-capacity production. An optimal processing concept will be jointly developed.

**Machine allocation** The processing sequence, the number of spindles and tool changers will be jointly determined. It will then become apparent whether the processing centre is sufficient for the production of all the window types required. This phase determines the further, successful project planning procedure.

**Tool concept** A tool concept takes into account the part variability, number of items, machining technology, processing programs and the production goals. Profiles are split over the spindles to achieve maximum flexibility and economic efficiency by covering different wood thicknesses and profile versions without a need for retooling.

## Tools

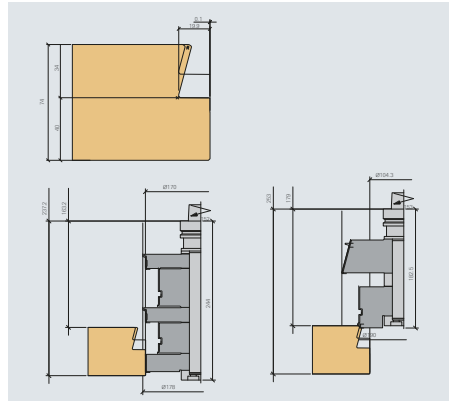
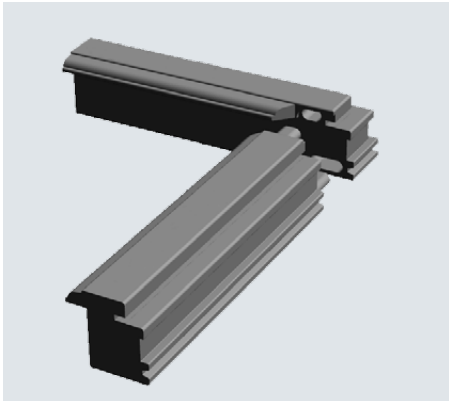
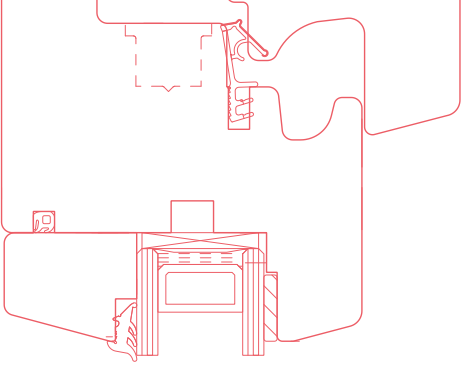
All tool sets are provided with comprehensive documentation.

**Tool drawings** The drawings include application data such as feed and rotation speeds and provide the machine operator with the basic information for adjusting the machine according to the correct adjustment parameters.

**Tool changer layout plan** A position on the tool changer of the machine is allocated to all tool-filled spindles and this is recorded in a plan. Optimized tool concepts save tool changer positions and thus machine setup costs.

**Knife list** The tool drawings include all knives and their respective item numbers. This is used to generate a list that can be used for easy reordering of replacement knives.

**Tool Set Outline** OERTLI generates the tool set outlines. These are based on the contour of the rotating tool set. The outline curves are used for collision control, abrasion simulation or other visualisations. Outline curves help to reduce the positioning time and increase the safety of the entire production process.



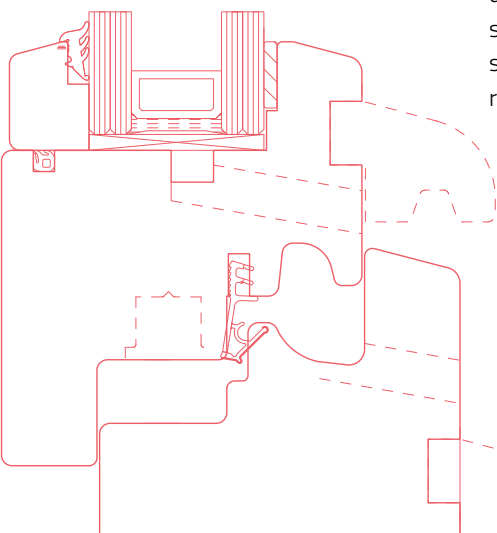
## 2D and 3D visualisation

For complex situations: 3D representations are used when additional visualisation is required.

**OERTLI Connect 3D visualisation** The documentation of specific arrangements of the Connect corner joint requires 3D representations.

**OERTLI Connect 2D matrix** The 2D matrix includes all dimensions such as pin width, slot depth, pocket processing and part width of the Connect corner joints.

**Rebate joint drawings** The transition between window sash and fixed glassing in the same components is shown in the form of rebate joint drawings. They record the processing sequence, the tools used as well as the entry and exit points of the respective tools.



## Machine programming data

The processing is shown in the profile sequence drawings. These data facilitate a smooth machine programming.

**Profile name table** The profile name table includes the names of all profiles to be produced on the machine. The profile name table corresponds as a database for the subsequently produced profile sequence drawings.

**Profile sequence drawings** A profile sequence drawing – also referred to as an HP drawing – shows the tools used and the corresponding spindle positions for each profile to be processed. The HP drawings are the base for machine programming and the integration into the window software by the user.

**Dowel drill patterns** The programming of dowel holes requires detailed drawings in some cases. Each of the required drilling situations is defined and provided with all relevant dimensions.

## Commissioning

OERTLI will support you up to the commissioning stage of the machine and ensures complete implementation of the project.

**Coordination meeting** Coordination meetings with all project partners involved will be held for complex projects. This involves the machine builders, software providers, tool manufacturers and the customer. We will present the processing and tool concept in this context.

**Commissioning with acceptance protocol** The tool manufacturer will attend the machine acceptance process at the plant as well as the commissioning of the machine on the customer's premises on request. An acceptance protocol with all pending tasks and complaints will be compiled after commissioning on the customer's premises.

**Training** OERTLI offers professional training by specialised staff regarding tool cleaning, maintenance and handling. The training can be provided on the customer's premises or in the form of training blocks at OERTLI in Höri, Switzerland.

**Service** Replacement knives, sharpening service and immediate help in the event of a crash. OERTLI guarantees sustainable service.

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