

TOOLS

MODULAR AND ERGONOMIC – NEW PINCH ROLLER SAVES RESOURCES AND HEALTH



The ergonomic handle of the new pinch roller (r.) will be used with further tools by FREUND in the future.

Thanks to its modular structure, FREUND's innovative pinch roller requires up to eight percent less components, is almost completely recyclable and saves the roof tiler's arm due to its ergonomic design.

THE COMPANY

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ESTABLISHED

1844

LINE OF BUSINESS

Production of high quality
hand tools

EMPLOYEES

32

INITIAL SITUATION

When it comes to hand tools, the medium-sized company FREUND is a worldwide leader in the field of e.g. slate and brick processing. Especially roof tilers, carpenters and plumbers are their customers. It was the producer's target to improve a reliable tiler's tool in a way that it increases quality and at the same time facilitates both production and handling. In addition to that, environmentally-friendly and recyclable materials should be used. During the de-

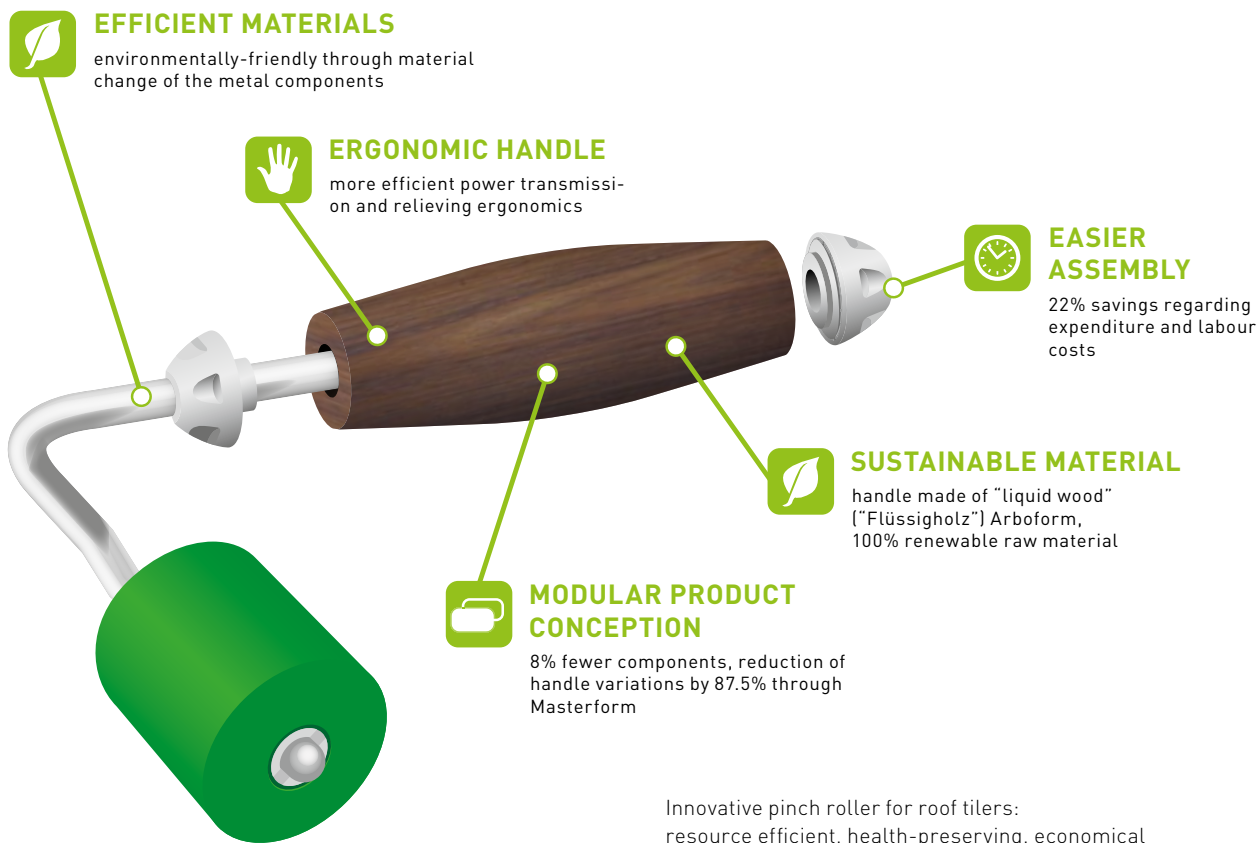
velopment process of the new tool, FREUND utilized the Effizienz-Agentur NRW's resources efficiency consulting. The EFA communicates method competence regarding environmentally compatible product design and development. In cooperation with Goelitz Design from Solingen, the Effizienz-Agentur NRW supported the conception of the pinch roller.

Saving resources. Strengthening the economy.

THE RESOURCE EFFICIENT PRODUCT

The characteristic feature of the new generation of pinch rollers is the improved ergonomic design of the tool. The changed constellation of the handle and the roller ensures a considerably more efficient power transmission and thus a relief for the user. Due to the new product design, eight percent fewer components for the tool in total are required, while at the same time the number of working steps for the production and assembly can be reduced by 22 percent. Furthermore, the material change of the tool head from steel to stainless steel and aluminium makes a galvanizing process unnecessary. By means of the tool head all single parts can be replaced easily. This was previously possible for only 60 percent of the parts which is why

this option was rarely used by the customer. FREUND will offer an extensive repair service for this new product generation. A special feature of the pinch roller is a handle made of Arboform® – also known as “liquid wood”. The composite material which is made of renewable raw materials is 100% recyclable. The ergonomic handle is supposed to be used for all types of devices at FREUND in the mid-term and replace the 49 handle variations which have been produced so far. The positive resource effects of the new tool are convincing; FREUND was awarded the “Efficiency Prize of North Rhine-Westphalia” for the development of the pinch roller.



The project partner

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