

FOCUS ON APPLICATIONS

A UNIQUE ZERO GAP SYSTEM FOR DAMAGE-FREE PROCESSING

PARTS FOR GLASSES

Spectacles, now more commonly referred to as glasses or eyewear, are mainly worn as an optical aid to correct defective vision and misalignment, in which case they are also referred to as corrective glasses. Glasses can also be used to protect the eyes from the effects, injuries or irritation caused by external influences. And in some cases, people wear them as a fashion accessory. There is also a vast market in sunglasses where there is equal care taken over frame manufacture – especially by high-value brands.



The main parts in a pair of glasses are the lenses and the frame. In turn, the frame consists of several smaller parts such as temples, end pieces, hinges, lens rims, nose pads and a bridge.

The bridge is important, as it is the connecting

part between the lenses and ensures their weight is evenly distributed. High-grade materials are fundamental in the manufacture of glasses. Metal frames are shockproof, scratch-resistant and make the end product more aesthetically appealing. Another production factor is ensuring that the bridge is fully deburred and rounded to guarantee maximum comfort for the wearer.

OTEC CF machines have a special deburring, smoothing and polishing process for small glasses parts such as hinges, bridges and connecting parts, preparing them perfectly for further processing. To remove the burrs left by manufacturing, our process first uses ceramic grinding bodies for stronger grinding, then plastic ones for refining. To keep the parts clean during the process, a compound is added to rinse away the abraded material and protect against corrosion. Next comes high-gloss polishing with a special walnut granulate that produces a smooth surface – a must from an aesthetic point of view.



Glasses hinge



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OTEC disc finishing machine CF 3x18

OTEC CF machines use a centrifugal process for highly effective mass finishing. The glasses parts are placed in an abrasive and moved around by a revolving disc separated from the process container by an adjustable gap. This produces a toroidal flow in the grinding media, enabling highprecision, thorough processing via the various centrifugal forces.

OTEC disc finishing machines can process glasses parts in bulk and therefore in-

crease efficiency. The reduction in processing time obtained by high rotation and relative speed also make the process more economical. The disc features rounded ridges so that glasses parts can be processed gently. Small, flat parts don't get lodged around the edge of the disc during the process and are therefore processed thoroughly.

Unlike their conventional equivalents, OTEC disc finishing machines can process very small metal parts for glasses without damaging them at all. Our unique zero gap system means that the gap between the revolving disc and the stationary container can be reduced to nothing. This means that highly delicate parts such as bridges and hinges can't get stuck in the gap, which prevents them from being damaged and produces a smooth, polished surface. The system also makes it possible to use very fine-grain grinding media. What's more, the ingenious container shape reduces processing time by up to 30% compared with comparable machines. So if you're in the optical business, 'opt' for OTEC – for glasses parts with a flawless, highly polished surface.

The company

OTEC Präzisionsfinish GmbH provides precision technology for achieving perfect surfaces. OTEC machines are used for deburring, grinding, smoothing and polishing, with the aim of improving surface quality on tools and products. With a network of over 60 distributors worldwide, OTEC is there for international customers from a wide range of sectors. Customers benefit from OTEC's in-depth technical expertise when it comes to developing the perfect interplay of machine and abrasive.



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Press contact OTEC Präzisionsfinish GmbH Heinrich-Hertz-Straße 24 75334 Straubenhardt-Conweiler Germany Tel. + 49 (0) 70 82 - 49 11 20 Fax + 49 (0) 70 82 - 49 11 29 info@otec.de www.otec.de