



Binocular loupe light from HEINE Optotechnik

Binocular loupes with LED

About one year ago I became the proud owner of a pair of loupes from HEINE. Up to this date I was convinced that my good eyesight guaranteed the high quality of my work. But this was not the case! The first experience with the new vision aid were an enlightenment, in the truest sense of the word! The 2.5x magnification gives you an exceptional improvement in detail recognition. When using plastic filling material, where the precise colour match of the latest composites makes the exact border between the original tooth material and the filling almost imperceptible, these tiny but important imperfections in the border zone, which would otherwise have gone unnoticed, become visible. The same applies to finishing work on most other fillings and crowns.

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In operative dentistry, wound closure with sutures results in a much better adaptation of the edges of the wound, which not only improves and speeds up healing, but also reduces the risk of any possible complications for the patient. The working distance of around 30 to 35cm from the patient reduces strain on the operator's body significantly by avoiding the usual effect of an unnatural posture. The tendency to bend too far towards the patient is no longer there, as the image is in focus at the prescribed working distance and not at close range. This focus also reduces eye strain because the eye focuses on the object itself and not on the area around it, which can be distracting. The elimination of eye strain and the improved view make an important contribution to the significant improvement in the quality of the work done. This not only benefits the patient, but is also more satisfying for the operator. The patient sees that the binocular loupes help to improve the precision of the work done. Many patients comment on "that

instrument on your head"! A short explanation usually impresses the patient, which can only benefit the practice. After all, mouth to mouth publicity is the of essence!

/// THE INSTRUMENT CONSISTS OF FIVE COMPONENTS:

The lightweight S-Frame, weighing just 24g, is manufactured by Rudy Project, well-known by sportsmen for the quality and functionality of its products. The frame is comfortable and does not slip. An additional feature is the oversize silicone nose pad, which effectively avoids any pressure on the nostrils. There is also virtually no feeling of restriction even over long periods of use. Prescription lenses can be built into the optional clip-in frame, if required. This is the case with me. I too am not getting any younger! The i-view loupe mount attaches to the S-Frame. This new generation of loupe mounts lets you work either with or without magnification, according to taste and the work situation. The loupe mount can be adjusted individually to suit any user. This allows you to adjust the position of the loupes and the illumination to the ideal position in front of your eyes to provide an ergonomic posture. Both loupes and loupelight are attached to this loupe mount. The loupes are the so-called HR type. HR loupes were developed by HEINE and incorporate high-tech achromatic optics which produce a significantly-brighter image compared with other loupe systems. The achromatic optics guarantee a larger field of view with optimum depth of focus. This means that the entire magnified field of view is homogenous and there is no distortion in the periphery. This avoids the need to continuously focus on a small central part of the field and also reduces

the need to re-focus, thereby reducing eye strain so that you can work over long periods without eye strain and unnecessary fatigue. The system is, of course, waterproof: Even running water under pressure will not cause any problems, which simplifies cleaning and improves hygiene. The lenses benefit from a new dental coating, which makes the use of detachable protective lenses less important, even over many years of use.

/// THE LOUPE MOUNT ALSO INCORPORATES THE NEW LED LOUPELIGHT WITH ASTOUNDING 40.000 LUX!

This illumination from an optical system with no less than 4 precision lenses guarantees extremely bright light over the entire field of view. Cavities and edges and other contours are illuminated by even and shadow-free light, so that there is no longer any need for compromises in your work. Luckily, the light can be continuously-dimmed, further reducing the risk of premature hardening of composites. A yellow filter is also available as an accessory to allow you to work at full brightness. The housing is made of aluminium to reduce weight and to ensure that the temperature does not exceed 40° approximately. Of course, the unit is waterproof with regard to running water with the advantage of improved hygiene in use. The last link in the chain is the new battery pack, the new HEINE mPack LL® with Li-ion technology – no memory effect. This ensures unique reliability and long life. Up to 17 hours' of use even under full load and just two hours for a full charge at last makes it possible to work without any annoying interruptions. The older generation of battery packs without these advantages, had less capacity and Murphy's law means that they were always empty when you needed them most! This is now history! Another useful feature is the charge status indicator, which shows you if you need to recharge before

starting a long procedure. If you find that the light is too bright for best results in certain procedures, you can also reduce the light steplessly to the ideal level.

/// SUMMARY:

For me, working without binocular loupes is no longer an alternative. This applies particularly to the HEINE system, which provides the ideal combination of functionality, technical sophistication and comfort in use. Other manufacturers' products, which I have tested, have a long way to go to match this.

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