

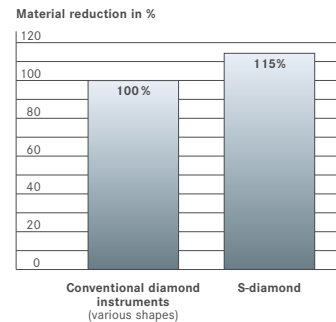


# Preparation of cavities | S-Diamonds

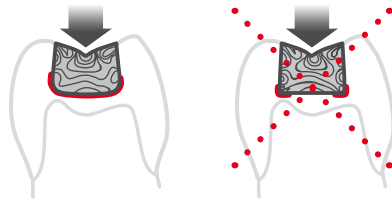


## Quick and effective preparation of cavities.

The range of S-diamonds has been expanded to increase the scope of applications which now includes the preparation of cavities, thus allowing optimal preparatory work for the subsequent direct or indirect restoration. The opening of the cavity and the initial preparation are noticeably simplified with the help of these structured diamond instruments. When used in combination with coarse grit, these instruments achieve a considerably quicker and more effective material reduction. The faceted structure of the blank reduces clogging and consequently the generation of heat. All in all, the operation becomes significantly more effective.



A comparison between conventional diamond instruments and S-diamond instruments clearly shows a measurably higher material reduction when using structured instruments.



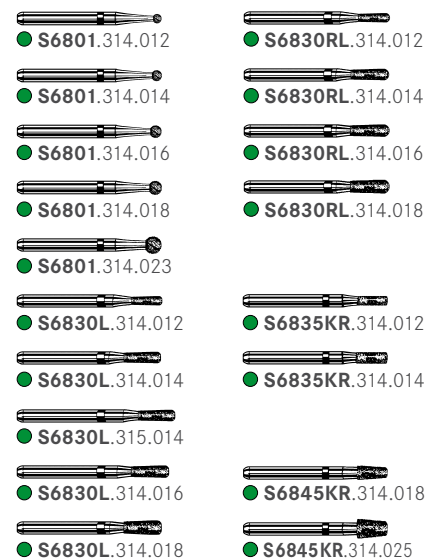
In order to prevent the formation of micro cracks, it is recommended to use instruments with rounded edges (to be recognised by the letters KR in the figure number). The red marking illustrates the different distribution of forces.

### Recommendations for use:

- The use in the red contra-angle is recommended, at an optimum speed of  $\varnothing_{opt.} 160.000$  rpm.

If used in the turbine, the optimum speed is  $\varnothing_{opt.} 300.000$  rpm (except S6845KR.314.025).

- Make sure to use sufficient spray cooling (at least 50 ml/min.).
- Due to the instruments' high cutting ability, only apply low contact pressure not exceeding 2N.
- During treatment, make sure that the cavity margins are bevelled with a suitable finishing instrument after excavating (for example with the H1SEM). This results in an optimal prismatic pattern in the enamel, thus reducing the risk of cracks in the cavity margin.



German patent DE 199 08 507  
European patent EP 1 031 325

