DGUV
Deutsche Gesetzliche Unfallversicherung
Spitzenverband

Prevent defeating by ensuring safe access to the tool even when the guard is closed

Problem:

Milling machines are frequently used for the precision machining of workpieces. The diamond tools sometimes used in this process often need to be manually re-sharpened several times a day using a grinding wheel. This usually requires the tools to be removed, re-sharpened by hand outside the hazard zone, and then refitted once the grinding process is complete. Due to the high time and labour costs involved, there is a strong incentive for the operator of such a machine to bypass the milling machine's safeguard and carry out the sharpening process with the guard open and in direct contact with the rotating tool. This creates a significant risk for the operator.

Measure:

The operator is given the option of carrying out the grinding process using a hand-held auxiliary tool without removing the diamond tool and whilst the guard is closed.

Example: Processing glass plates

Milling machines with diamond tools are used for processing flat glass plates. To simplify the grinding process, the safeguard must be fitted with a recess. Using an auxiliary tool guided through the opening, the operator can carry out the grinding work on the rotating tool. This eliminates both the time-consuming and labour-intensive removal and reinstallation of the tool and the need to stop the machine for this purpose. The grinding operation can be carried out at any time during the work process. This completely eliminates any incentive for defeating.



The opening in the guard must be finger-safe. In the example shown, this is achieved by ensuring that the auxiliary tool cannot be pulled out of the opening. Replacement of the grinding wheel takes place – as does the regrinding of the tool, albeit much less frequently – with the machine stopped and the guard open.