

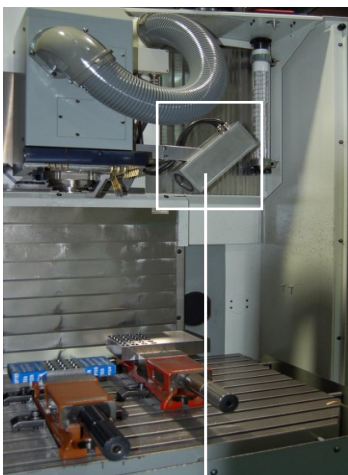
Wohlhaupter Precision Tools, Germany
www.wohlhaupter.de

Seeing is Understanding - it is easier to comprehend and effectively apply something having once seen it and Wohlhaupter GmbH Precision Tools are fully aware of this. Wohlhaupter GmbH, a family business located in Frickenhausen, Germany, was established by Emil Wohlhaupter in 1929 (mould and die tool production). Today the company is a worldwide renowned manufacturer of modular tooling systems for machining, turning and milling centres, facing and boring heads, grooving heads, clamping tools and customised solutions for boring operations. With the establishment of their US subsidiary Wohlhaupter Corp. in 2002, Wohlhaupter now distribute their tooling systems on a global basis and have recently been awarded two innovation prizes.

As a machining specialist, Wohlhaupter do not only offer a detailed know-how of innovative products, but also a commitment to service. From the initial design concept to development, quality assurance, starting-up of the respective tool and user-specific training, an experienced specialist is always at first hand. Furthermore, themes such as "Tool Optimisation", "Possible Applications" and "Customised Troubleshooting" are covered in a range of seminars at no extra cost. All Wohlhaupter specialists also receive up-to-date training in order to resolve problem handling in a fast and effective manner.



A picture is worth a 1000 words!



EYE-12 with a special housing

In order to implement "Seeing is Understanding" during internal and external training sessions, visual aids are naturally required. A machining centre is used to demonstrate the manufacturing technology, machining process and application fields. As the spindle tool is supplied with a cooling lubricant by means of high pressure during machining, it is not actually possible to observe the process from outside the working chamber. The solution a camera, which is connected to an external plasma screen, had to be installed inside the machining centre in order to film the process. This initially proved to be rather challenging as the camera was exposed to extreme conditions. Apart from that and the jerky movements of the spindle tool, not forgetting oil spray and cuttings, the picture quality also had to be outstanding.

“We tested cameras from various manufacturers, but it seemed as if the requirements were too high,” said Frank Wohlhaupter, the Technical Director from Wohlhaupter GmbH. Ultimately the EYE-12 from WolfVision was tested and the response was extremely positive. The Progressive Scan live image camera, with its 30 frames per second and outstanding auto focus, produced an image quality that was much better and more stable than originally thought possible. Wohlhaupter GmbH has designed its own housing for the EYE-12 camera, which is made of aluminium and Plexiglas. Not only is the camera used for training and demonstrations, but also to observe and monitor custom-made production, which at times includes uncommon materials.



“We see ourselves as a problem solver in the bore machining technology. Only consistent further development and testing can lead to innovation. The WolfVision camera assists us to impart knowledge and further advance development,”
emphasised Frank Wohlhaupter.