

Repairing machines for larger throughput of drawing dies

THE wire and cable industry is increasingly using higher speed multi-wire drawing machines, using PCD wire drawing dies in each line simultaneously, and wearing them out relatively quickly, so that they often have to queue for reconditioning at die workshops, where skilled operators or suitable die reconditioning machines might be in short supply.

A growing number of PCD dies mounting up with a need to be reconditioned can cause bottlenecks in existing die workshops, as there are either not enough human experts or insufficient equipment potential available.

To solve this problem, Eder-Austria has designed two intelligent but easy-to-operate machines, to accommodate a lack of expert skills in die tool maintenance while offering the necessary machining potential and capacity to continuously recondition the increasing amount of dies awaiting repair. Both machines offer a large die-size work range, from 0.05 to 9mm Ø.

The **USP-Twin** is a powerful and versatile ultrasonic machine with two independent workstations that are suitable for profiling, de-ringing, enlarging and polishing of tapered die-profile portions in round ND/PCD wire drawing dies.

It can be controlled by a single operator, reconditioning two dies simultaneously, and so practically doubling output. The USP-Twin is equipped with two integrated needle reshaping systems, swinging die-polishing turntables and intelligent work pressure setting devices, as well as a timer for each workstation to limit work cycles as required.

After the working of the tapered die portions, it is necessary to calibrate and polish the cylindrical bearing portion of the dies, and with a high-speed wire type equipment of equal potential, to avoid a possible bottleneck in the overall refurbishment of the worn-out multi-wire drawing dies.

The second machine – **model HGM-21** – has a solid-column construction with integrated worktables, switchboard and SIMATIC control device. It also features two independent workstations, handled by one only operator and able to work all ND/PCD dies within the complete multi-wire die size range.

Each of the independent stations features an automatic work-cycle stop, as well as an optical and acoustic stop indicator.

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