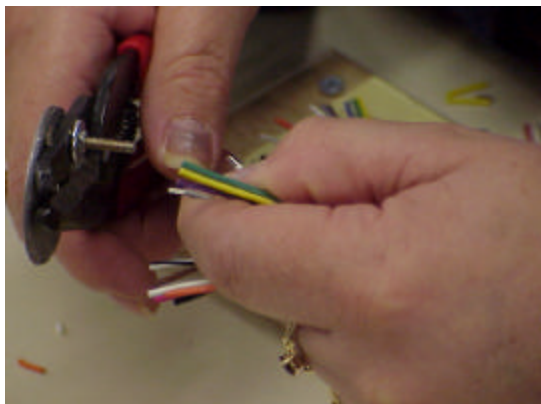


Hand-Held or Bench-Mount Wire Stripper Device

From this



To This



NEED

Operators at Electronics Assemblers Inc. in Hood River, Oregon were using standard manual wire stripping tools to strip wire insulation from a variety of electrical cables. While Electronics Assemblers could process some cable on automated cut & strip machinery, many were multi-conductor cables that required the individual leads to be processed manually. While the tools used for this work were suitable for light production or contractor use, they presented a variety of ergonomic challenges. Most of this was due to a squeezing and pulling action required by the operator. A solution was desired that would preserve or enhance operator productivity and make the operation much easier to perform, mainly through the elimination of the squeezing and pulling motions.

SOLUTION

After developing two designs that did not function well, a tool possessing most of the desired characteristics was identified. As several key features were not available, the manufacturer of the tool (Ideal Industries in Sycamore, Illinois) was contacted to see if they would assist in modifying the tool to add the desired features. Ideal donated two tools for modification and tryout, which greatly assisted the efforts. The end result was a device that had both a hand-held and bench-mounted application with the addition of several other features that make the tool more suitable for production use. The modifications to the tool were designed by Engineering and Prototype Services in Portland, Oregon.

BENEFIT

A pre (existing process) and post (new process) ergonomic assessment confirmed that ergonomic risks had been eliminated or reduced. The required motions for the operator have been reduced to holding the wires in a neutral position while the part is being processed. Additionally, the operator may mount the tool in a bench vise, which requires only handling of the cable and operating the tool via a foot switch.

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