



GRAHAM ENGINEERING

Press Release

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NEW EXTRUDER OPTIONS CUT TIME FOR JOB CHANGEOVERS THROUGH RAPID SCREW PULLING, HOPPER CLEANOUT, AND TOOLING CHANGE

When Used in Combination, SMED Quick-Change™ Solutions from American Kuhne Reduce to Less than Four Minutes a Series of Tasks that Normally Requires Half an Hour

YORK, PA, U.S.A., April 28, 2015: American Kuhne has applied Single-Minute Exchange of Die (SMED) concepts to key tasks involved in extrusion job changeovers, creating three options that substantially reduce downtime in tubing, profile, wire and cable, and other small-die production lines.

Available separately or as a package, American Kuhne's SMED Quick-Change™ options cut changeover time by nearly half an hour when used in combination. The options are available with new American Kuhne extruders or can be retrofitted onto equipment from American Kuhne or other suppliers. Involved are three innovations:

- **Quick Collet Screw Pusher.** This device reduces setup time for screw pulling from five minutes to less than one minute by use of a spring-mounted locking nut and a sliding collet to fasten the nut onto the threaded screw-pushing rod at the rear of the drive shaft. Conventionally the rod is affixed by spinning a nut into position and installing and tightening six screws. Time saved: 4 minutes.



- **Rotary Hopper.** This reduces cleanout time to about one minute through its capability of being pivoted away from the feed throat for rapid dumping of excess material and easy access for vacuuming residual material and adding purge or new material. In contrast, cleanout of a conventional hopper requires about six minutes: It must be manually emptied of excess material and can be accessed for vacuuming only through its opening from above. Time saved: 5 minutes.

- **Dual-Head Arrangement.** This system reduces the time needed to change dies from twenty minutes to only two by having a pre-heated head with breaker plate ready for fast replacement of the one that has been in use. Both heads are mounted on pivoting support structures on either side of the die area and have separate electrical connections. To replace a head, the operator simply loosens the clamping nut, opens the clamp, pivots away the previously used head, removes the breaker plate, mounts the preheated head and breaker plate, and closes and tightens the clamp. In a conventional system, one must remove the die nut, die, and tip before removing the head and breaker plate, insert a cold breaker plate, install the new head, insert a cold tip, die, and die nut, and wait for the system to reach working temperature. Time saved: 18 minutes.



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“The SMED Quick-Change options are each an example of ‘customextrudication’— a custom solution designed to help a particular customer, in this case those looking to shorten changeover times,” said Bill Kramer, CTO of extrusion systems. “Because these are market-driven innovations that have solved problems effectively, we are now offering them as options for all our customers.”

A video comparing the SMED Quick-Change options with conventional systems is available at <https://www.youtube.com/watch?v=nsmq8CDxH2g>.

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The Graham Group acquired majority interest in American Kuhne in 2012, followed by Graham Engineering Corporation’s acquisition of Welex in June 2013. Together, Graham Engineering, American Kuhne, and Welex create a convergence of leading technologies, people, and capabilities in extrusion. Graham is a privately held company headquartered in York, Pennsylvania, USA.

Graham Engineering is the global standard in wheel and industrial extrusion blow molding solutions, with 400 installations in 20 countries. Graham Engineering offers package design, product development and processing expertise, along with monolayer, multilayer, and barrier extrusion blow molding equipment and technology upgrades. Visit www.grahamengineering.com.

American Kuhne is the preferred provider of engineered solutions for plastics, rubber, and silicone extrusion. American Kuhne solutions comprise standard and custom single screw extruders, feed screws, extrusion systems, and specialized turnkey systems for laboratory, medical tubing, narrow web, wire and cable, pipe, tubing, and profile applications. Visit www.americankuhne.com.

Welex is the global standard in high performance sheet extrusion solutions, with over four decades of leadership. Welex solutions are installed in more than 3,000 customer locations in 69 countries. The company’s innovations include co-extrusion and multi-layer methods that lead the industry as well as dozens of barrier lines installed globally. Visit www.welex.com.