



## UTILIZING DISTANCE-BASED CRIMPING TECHNOLOGY TO OPTIMIZE COMPRESSION

### CREATING UNIFORM, INDUSTRY-RECOGNIZED CONNECTIONS

When choosing the best tool for making electrical compression connections, there's a lot more at stake than just personal preference.

Accountability. Reliability. Appearance. Productivity. Safety. For as long as compression tools have existed, these have been the main drivers in determining which crimpers contractors and engineers considered.

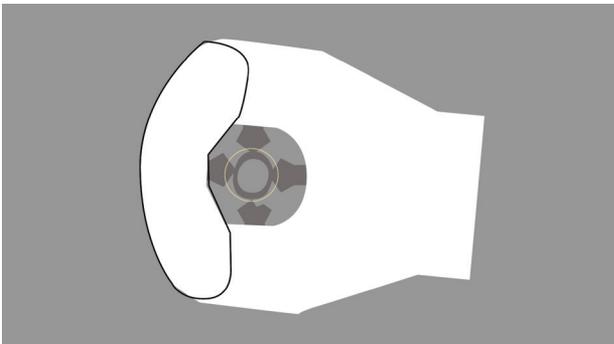
Though die crimpers have often prevailed because of their reliability, inspect-ability and visually good-looking crimps, dieless crimpers are often simpler to use and can help contractors save time and overall cost on projects.

However, current dieless users should not have to sacrifice appearance, reliability and inspect-ability of their connections simply because of their tool choice.

### THE PROBLEMS WITH CURRENT DIELESS TOOLS

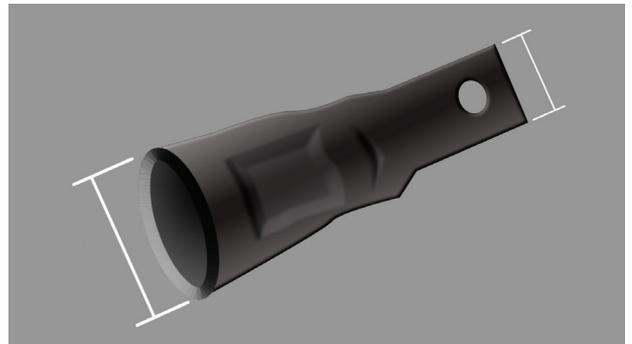
Despite various permutations and technological advancements that have increased the efficiency of die crimpers, the same cannot be readily said about dieless. Four-point and single-point tools have historically been the only options available, each with their own set of disadvantages.

#### FOUR-POINT TOOL



Used more commonly, four-point tools require multiple and different numbers of crimps for each connector and their "teeth" are prone to breaking when the connector isn't perfectly aligned.

#### SINGLE POINT TOOL



While easier to use, single-point tools are designed around the largest sized connectors, with extra wide nests and large indenters that completely mash and distort the middle and smaller sizes. This distortion makes it difficult to land connectors to equipment.



## DISTANCE-BASED CRIMPING TECHNOLOGY

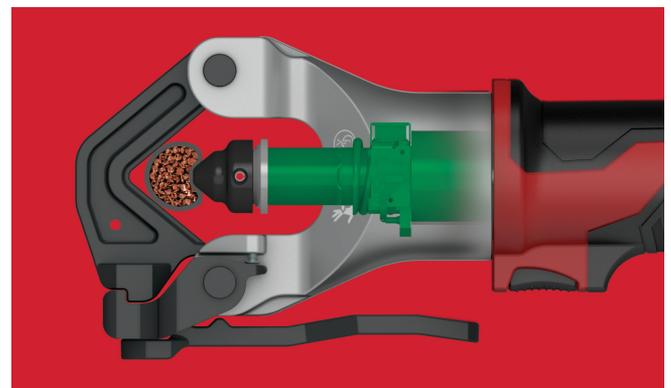
Since the first introduction of FORCE LOGIC™ high-force tools, Milwaukee Tool has maintained a leadership position when it comes to advanced technology. To solve the disadvantages of dieless crimpers, the company had to apply its knowledge of compression in a different way while maintaining the industry standard for what constitutes a good electrical connection: UL 486A-B.

### AUTO DISTANCE CONTROL

A distance-based crimping technology patented by Milwaukee®, Auto Distance Control uses a specific compression percentage for each individual connector size to deliver optimal compression. With this technology, users benefit from dramatically improved crimp appearance, while maintaining reliable, industry-standard connections. Using distance as the primary compression metric, the technology delivers optimal compression, allowing for single crimp connections across the entire capacity range.



Auto Distance Control combined with continuous pressure monitoring enables the tool to sense the instant it contacts the connector; analyzing the outside diameter of the connector to determine its size, and simultaneously setting a target final crimp distance.



The ram continues crimping the connector until it reaches the specified target. Once it reaches that distance, it checks pressure and then gives the user instant verification through the green LED that a good crimp was made and the ram automatically retracts back to its starting position.

### AUTONOMOUS IMPLEMENTATION

Milwaukee® currently utilizes this technology in its M18™ FORCE LOGIC™ 750 MCM Dieless Crimper. Auto Distance Control acts simultaneously and instantaneously without the user ever having to stop, slow down, change settings or do anything different than how they would operate any of the dieless tools they may have used in the past.



## UNIFORM CRIMP APPEARANCE FOR EVERY SIZE

Controlling the crimp distance through Auto Distance Control allows for consistent, aesthetically appealing crimp appearances across the entire capacity range. The tool's ability to sense the size of each connector delivers optimal compression; creating UL 486A-B Classified connections with only a single crimp placed in the center of the barrel for #6 to 750 MCM Copper and Dual Rated connectors for both Lugs and Splices across the seven leading connector manufacturers.\*



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