YOUNGSTOWN, Ohio, May 19, 2019— Taylor-Winfield Technologies, Inc. is pleased to announce their exclusive license agreement with Germany based KAPKΩN GmbH to offer Capacitive Discharge (CD) power supplies equipped with their Multi-Capacitor Source (MCS) system to the North American marketplace.

CD welding is used in metal joining applications. The process is frequently used in parts production applications such as gear manufacturing or joining nuts and studs to vehicle structural pillars with different material types and wall thickness combinations. Until now, CD control of the welding current was determined by the design characteristics of the machine (the current capacity of the capacitors, the design of the transformer and the inductance of the welding current circuit). Variation of the welding parameters is only possible to a limited degree via the charging voltage of the capacitors. These tightly restricted limits can now be expanded with the new Multi-Capacitor Source (MCS) system. This system allows for greater flexibility in the settings of the weld power (comparing single pulse welding to multi pulse sequences) by dividing the capacitors into four individual and independently controlled capacitor banks.

With four capacitor banks connected in parallel, it is now possible to specifically influence the output of the welding current with the MCS system. This allows the system to customize the process control for a specific joining task. For example, a capacitance change can take place without mechanical adjustment. Furthermore, it is possible to simulate the progressions of the welding current using software connected with the welding system.

Included with the MCS system is Kapkon’s Q-Check quality system that automatically monitors up to 10 process parameters. The monitoring focuses on the evaluation of the dynamic displacement signal, which is supplemented by the voltage and resistance curve.
Taylor-Winfield will build all CD welding machines with KAPKΩN GmbH power supplies. Blake Rhein, VP of Sales and Marketing explains that "the relationship between Taylor-Winfield and KAPKΩN GmbH is mutually beneficial. KAPKΩN GmbH power supplies with MCS and the Q-Check system directly aligns with Taylor-Winfield’s mission of bringing advanced material joining process solutions to our customers to help them succeed in their markets."

Taylor-Winfield Technologies, Inc. is dedicated to delivering advanced manufacturing technologies and process solutions that enable our customers to compete in today’s ever changing marketplace. By providing simple to complex metal joining and material handling systems with on-going field service and replacement parts support, Taylor-Winfield remains the company customer’s trust.

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