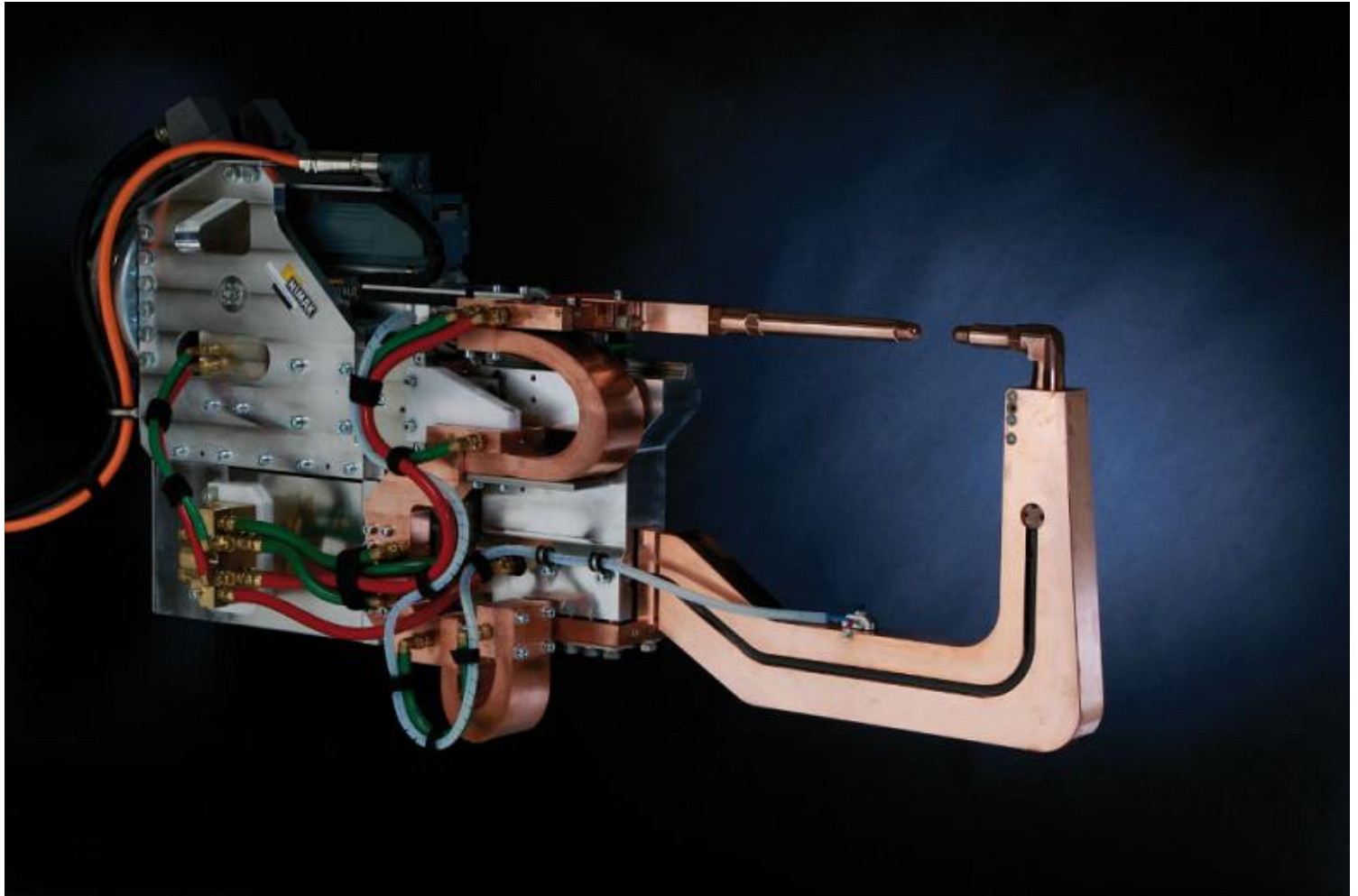


Robotic welding gun features centralized motor, magnetic drive

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Nimak GmbH has developed a new concept for robot welding guns, designed for use in multimaterial mixes and in large-scale production using conventional steel.

The powerGUN robotic welding gun has a centralized motor and gear unit that enables a significant weight reduction and lower interference contours while providing superior joining results, says the company. It employs the magneticDRIVE drive type, which uses microprocessor-controlled electromagnets. This drive can be used in all resistance welding applications, from stationary spot and projection welding machines to robot welding guns.

The gun offers welding times of a few milliseconds, providing an alternative to capacitor discharge welding, the company states. With the ultrafast power-generation and slip system, the user can set an exact power profile that controls the rise and fall of the electrode force across a large range in milliseconds.

This short, controlled welding process is suitable for spot and projection welding of aluminum with highly varied alloys that are used in auto and aerospace applications.