Steel tube and pipe manufacturer adds MPERIA®-controlled DOD marking with pigmented white ink for product identification
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**The Challenge**
A California-headquartered manufacturer of steel structural tube, pipe and ornamental architectural shapes was looking for a solution to mark 2D codes and alpha-numeric characters onto the sides of its steel tube products. The large-format marks provide customers with product identification and quality information. Already using Matthews’ valve jet equipment to mark with black ink, the ink’s limited contrast against the different types of steel substrates—including cold rolled, hot rolled, galvanized, pickled and oiled finishes—made legibility a challenge in certain applications. Their requirements included:

+ Printheads capable of marking variable data and barcodes in multiple combinations
+ Ability to produce a high-contrast, easily visible mark crisp enough for a 2D barcode to be read by an imaging system
+ Ink capable of adhering to a variety of steel substrates
+ Universal controller to manage and direct the printing of different marks as associated to different products

**Matthews’ Solution**
Matthews recommended adding the VIAjet™ V-Series large character drop-on-demand (DOD) marking system with a 32-valve 8000+ printhead and high-contrast SCP-800A white pigmented ink, powered by Matthews’ marking and coding automation platform, MPERIA. By imprinting directly on the tubes with the white ink, all marks have clear contrast and are highly legible (both by customers and imaging devices) against any dark steel substrate.

Additionally, the Matthews printhead utilizes micro-valve technology to lower ink consumption while producing high-quality, crisp marks in sizes ranging from 0.125 to 5 inches (3.175 to 127 mm) at high speeds. The MPERIA system both controls the V-Series and stores a variety of variable marks and messaging for different products. Workers can easily select or modify the required marks and codes line-side as products change.

The first installation was such a success, that the company implemented the same printing solution to multiple other plants, with plans to continue expansion.