



Metallograph® Continuous Conductive Metal Printing

RAIN RFID Antennas and Sensor Mounts

Metallograph® continuous metal transfer ribbon's first major application was for transfer printing RAIN antennas directly on to paper and film label stocks. Long rolls of antennas feed high volume flip-chip IC applicators with conventional adhesive. After finishing & printing, labels & hang-tags are ready to attach.

This model now applies to RAIN tag production at all scales. In the design center, bench top thermal printers instantaneously make antennas ready to test. ICs can be added manually or with low volume pick-n-place. The same printers function for prototypes, demonstrations and short runs, at each stage being complemented with higher capability IC attachment, or time on a production machine. For very long runs, industrial thermal transfer printers are so inexpensive that for even the fastest production lines even having several in parallel, essentially costs almost nothing.

The most straightforward implementation of Metallograph® is obviously where there is an existing IC application device, i.e., where etched antennas are purchased in bulk, or produced. But Metallograph® is not a drop-in replacement for etched foil – being thinner the read range for the exact same design is less.

No doubt this is a barrier to selling. However, market success for digital printing has not been based on exactly matching traditional, but by meeting or exceeding performance requirements. Consider that read range of any antenna design has increased substantially with advances in tag IC and reader systems, *and will continue for the foreseeable future.* Experienced marketers know that selling anything even a little different is best based on performance and values. What the antenna, which is hidden from view, looks like is unimportant, provided that it responds to the fixed reader in a portal, or the hand-held in the racks.



Learn More about Metallograph® Div. of SPF-Inc.:
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