

## A cost effective metallization process for HDI, flex and exotic dielectric material

### Excellent performance and bath life

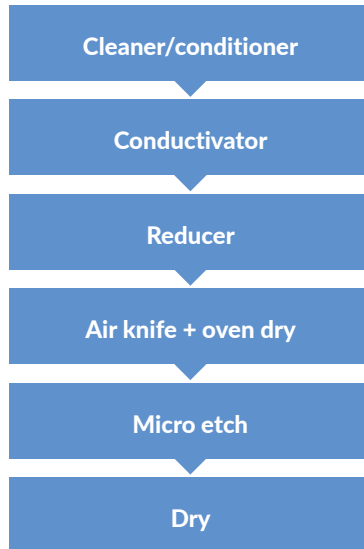
ViaKing® is MKS' Atotech enhanced graphite-based direct metallization process. Optimized for both high and low volume production needs, ViaKing® operates with an attractive CoO but offers the highest product reliability and capability.

Designed to operate with low etch conditions, in combination with a stable and long life graphite bath, ViaKing® provides excellent stability, conductivity and electrical integrity for market-leading high yield electrolytic plating.

### Key benefits

- Compatible with a very wide range of dielectric materials
- Direct Cu to Cu adhesion for maximum reliability
- Low etch depth for minimal copper removal on inner layers - reduced risk of etch back ICD or voids
- Unique Conductivator formulation is highly resistant to bacterial and copper contamination
- Wide operating window and enhanced bath stability
- Outstanding plating propagation
- Suitable for both panel and pattern plate technologies
- Easy to install into existing equipment
- Ideal for both high volume as well as low volume or stop / start production

# ViaKing® is a functioning and technically superior carbon based PTH process



# 50%

of existing customers are using ViaKing® for the production of flex and exotic dielectric materials

## Benefits

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- Universal, quick, single or double pass process
- Excellent joint reliability
- Enables mixed or hybrid dielectric builds
- No impact from low volume, or stop/start operations
- Very stable graphite bath with a long solution lifetime and wide operation window

## Features

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- Exceptional adhesion to a wide range of PCB materials
- Suitable for flex, flex-rigid, multilayer and HDI BMV products
- Direct Cu-Cu adhesion
- Improved conductivity over simple carbon black processes
- Small particle size with high pH ensures bath stability
- Short horizontal process with low water consumption
- Chelator free for simple waste treatment

## Environmental and HSE implications

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- No cyanide
- No formaldehyde
- No chelators

