



Value Added Assemblies

Semicon Associates has been a leading producer of quality dispenser cathode assemblies for over 45 years. These assemblies are used in vacuum tube applications for military and commercial systems or in other electron stream applications. Semicon's experience allows the customer a wide range of design options that extend beyond the traditional cathode geometry.

Designs include mounting structures, ceramic high voltage standoffs and focus electrode/gun structures with high mechanical and vacuum integrity. Value added assemblies are built for the microwave, ion laser and CRT cathode markets. Processes include precision machining and assembly, controlled induction and furnace brazing, resistance and laser welding and high vacuum ($<1 \times 10^{-9}$ torr) leak checking.

Structural materials include metalized alumina ceramics, refractory metals, iron based alloys such as Kovar and stainless steels and nickel based alloys such as Monel and Hastelloy. Many braze materials may be applied such as moly-nickel, copper, copper-gold alloys and palladium-nickel, among others. Various geometries and sizes may be accommodated.

Semicon value added cathode assemblies allow you to focus on your core business by:

- Freeing up technical resources
- Reducing cycle times
(easy next step installation)
- Improving quality (pre-tested, measured assemblies)
- Lowering costs (less labor, reduced inventory, no scrap, concurrent engineering)



a ceradyne company

The use of Semicon dispenser cathodes in a Semicon value added assembly assures higher yields and lower costs for the end user.



Value Added Assemblies

Beyond technical expertise, we offer a market and team driven approach. Semicon Associates will partner with you to develop customized solutions tailored to your needs. Our partnership continues after the sale is completed to ensure you get maximum benefit from your purchase.

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