



ACTIVE ANODE

Genco Active Anodes form an essential accessory for achieving greater control of plasma processes involving rotatable magnetrons - delivering benefits for low ion impact coatings such as ITO.

KEY FEATURES

1. Avoids anode drift in DC/DC-pulsed processes
2. Enhanced AC processes through better plasma confinement
3. Reduces heat on the substrate
4. Activates reactive gas species for enhanced ion bombardment energy
5. Enhanced O₂ plasma pre-treatment on high speed roll-to-roll applications

Perfect your process
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APPLICATIONS

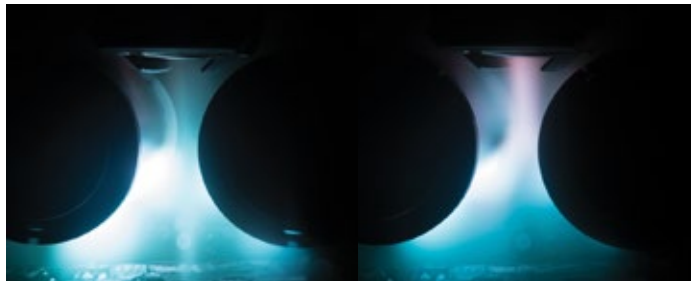
- Low temperature plastic web and parts coating
- Longer ITO coating campaigns
- Higher quality optical layer stacks
- Scratch resistant DLC on glass and plastic
- High rate plasma pre-treatment



Gencoa's active anode provides a consistent and effective path for electrons during rotatable magnetron cathode operation, ensuring process stability during long-term sputter coating processes.

The combination of magnetic fields from single or double magnetron system with the active anode forms a closed trap for plasma confinement, guiding electrons toward the anode and away from substrates.

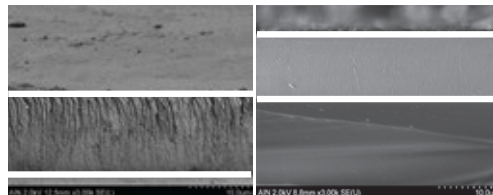
Gas injection ports, placed throughout the length of the active anode, allow enhanced ion energy bombardment and coating uniformity to be achieved – all achieved without the need for additional anode bias power supplies.



Dual rotatable plasma process without and with active anode

The combination of the active anode with Gencoa GRS dual rotatable magnetron system produces a high energy plasma volume incident on the substrate surface, ideal for dense layer production, without excess substrate heating caused by electron bombardment.

As a result of the reduced electron bombardment on the substrate, higher magnetron cathode powers can be reached leading to higher deposition rates overall.



CONFIGURATION	HARDNESS (GPa)
AC power, no active anode	11.6
AC power with active anode	13.1
DC-pulsed, no active anode	10.7
DC-pulsed with biased active anode	12.1

Aluminium oxide coating without and with anode gas injection

FURTHER INFORMATION

Contact: sales@gencoa.com or visit www.gencoa.com/active-anode

