



RECTANGULAR MAGNETRON

Gencoa planar rectangular magnetrons cover a range of robust and reliable cathodes, configurable with the widest choice of magnetic and mechanical options on the market. With high performance and low maintenance, all products benefit from Gencoa's process knowhow and implementation service.

KEY FEATURES

1. Robust with choice of optimized magnetics tuned to any application
2. High power RF/Hipims standard electrical insulation
3. Two water inputs/outputs with turbulent flow for high power
4. Zero-height anodes and sputter to target edge to prevent shorts and arcing
5. Integral anodes with option of water cooling or zonal gas injection

Perfect your process
www.gencoa.com

RECTANGULAR

APPLICATIONS

DC, AC, large area RF, Hipims, reactive deposition, metallizing, optics, hard/decorative coating, magnetic media, Low-E glass, displays



Gencoa have a long-established track record of providing rectangular magnetrons for coating flexible substrates, architectural glass, solar cells, displays, touch screens and semiconductor wafers, with products delivering a long-life, trouble-free operation and excellent target use.

Diaphragm type cooling is used as standard, enabling high power operation without breaking a water seal during target change. Direct cooling is achievable by removing the diaphragm. No helicoils are used for target clamping to reduce maintenance. M8 screw fixing into bearing materials provide fail safe operation.

The integrated gas delivery system acts as a powerful mechanism for tuning deposition uniformity by employing single or multi-zone control. Power options include DC, pulsed-DC, RF (up to 30kW) and HiPIMS.

A unique design incorporating zero-height anodes allows sputtering to the target edge to reduce dust and defects in the coatings and less coating on the anodes prevent short circuits during processes.

Cathodes can be mounted internally or externally in single, dual or angled dual configuration, with a cantilever option for internally-mounted cathodes. For selected applications, Gencoa can configure individual cathodes to meet specific process requirements and limitations. An OEM proprietary magnetron design and manufacture service is also offered.

A compact range targeting markets requiring a smaller cathode design which maximises the coating area is available, and supplied with direct or indirect cooling, with or without anodes and can be used in DC, pulsed DC, AC and lower power RF applications.

MAGNETIC OPTIONS

BALANCED (SW)/ UNBALANCED (PP)

Gencoa have pioneered the control of magnetic field interactions with anodes to enhance processes. Single and multiple magnetron arrangements are modelled and optimised as part of our customer service. High energy plasma assistance within chambers with DC or Hipims power modes are a speciality.

HIGH YIELD (HY)

Multipole magnetic array designs to flatten the field over the target surface for >40% target utilization to increase machine up-time and reduce material costs.

VARIABLE (VT)

A wide range of adjustable magnetic arrays are available that match more demanding applications: VT, VTR, VTFlex, VTS. Dynamic adjustment of balance, strength and uniformity.

HIGH STRENGTH (HS)/LOOP

Sputtering of Nickel (up to 6mm) or Iron (up to 2mm) can be achieved with high strength (HS) magnetics. Gencoa's Loop option enables a custom magnetic arrangement for even thicker ferromagnetic materials. Sources have special clamps to install/lift the target away.

EXTRA HIGH TARGET USE (XH)

The XH magnetic system is available for 150mm wide targets, and uses dynamic variable speed lateral movement to scan the plasma and sputter the entire surface - increasing the target use to 50-70% depending upon target details.

FURTHER INFORMATION

Contact: sales@gencoa.com or visit
www.gencoa.com/rectangular

