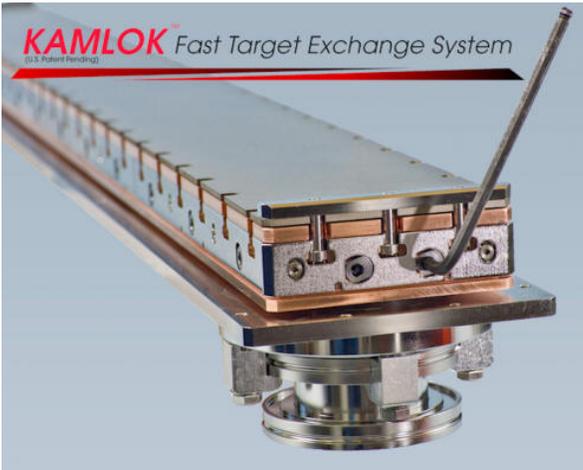


MATERIALS SCIENCE, INC.

Vacuum & Thin Film Technology

KAMLOK™ Fast Target Exchange System (U.S. Patent Pending)

One of a series of practical innovations that save money and increase productivity



- Target Exchange is Just Minutes, Even on Very Long Sources
- Fasteners are Completely Eliminated
- Low Cost of Ownership
- Simple, Rugged and Reliable
- No Target Clamp Warping or Bowing – Interchangeable Clamp Sections
- Easily Cleaned and Serviced.

The Highest Performance Sputtering Sources Just Got Better!

The unique Kamlok™ Fast Target Exchange System (US Patent Pending) completely eliminates the use of target clamp fasteners. Re-deposited target material doesn't have to be chipped away from the target clamp to gain access to fasteners for removal. Seized fasteners are a thing of the past. No more drilling and re-tapping of damaged threaded holes caused by fastener galling. Sealing the target against the cathode body is now accomplished through the use of a cam action mechanism.



The cam screws have a high adhesion proprietary coating that adapts to cycling between atmosphere and vacuum without particulate generation or degradation that causes fretting wear. The coating will not wear off during use and operates reliably under all conditions the sputtering source will be exposed to. It is UHV compatible.

Visual marks indicating open-closed condition of the Kamlok™ mechanism and a positive stop in both positions assure ease of target exchange.

Target clamps are sized to the overall target thickness and target mounting method. It may be necessary to have several sets of target clamps if several significant variations of target thickness and/or target mounting methods are required.

The mechanism components are all completely vacuum relieved. There are no trapped volumes to create virtual leaks, contaminate films and create arcing.



Open/Released Position



Closed/Sealed Position



Targets are easily and quickly exchanged.

MATERIALS SCIENCE, INC.
Pioneers in PVD Thin Film Technology



Target Clamping Bar Released

Stepped Target Backing Plate (without target) for thin targets shown. Targets can be bonded to the backing plate, clamped or directly water cooled (no backing plate) using the Kamlok™ Fast Target Exchange System.

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