

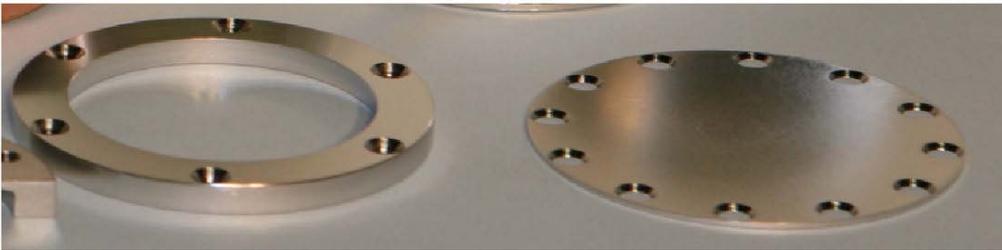


Product Specification Supplement for Target Mounting

Description

Polaris™ GEN II sputtering sources with 2 & 3 inch targets differ from the description noted in Sales Brochure MC 600 02/08 and Specification 451002 02/08 as follows:

Clamp and Backing Plate for Clamped Target

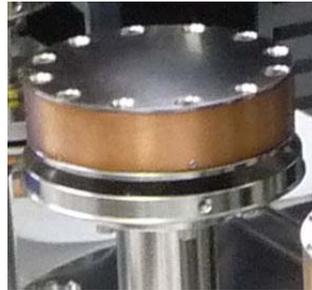


Target Clamp and Backing Plate
Assembled on Cathode Body

Source with "Semi-Permanent: Target Backing
Plate Arrangement with Target Clamp Removed



Target Bonded to Backing Plate



On 3" diameter sources allowable target thickness for non-magnetic materials = .060" [1,6mm] thick backing plate (standard) + up to .25" [6,35mm] thick target (including Ni targets). They may be bonded, clamped or directly water-cooled (no backing plate). 2" diameter sources allow the use of .188" [4,78mm] non-magnetic targets using a .060" [1,6m] thick backing plate.

All cathode bodies and target backing plates feature a 12 hole pattern. This has several benefits. It allows the backing plate to be "semi-permanently" attached to the cathode body so that it does not have to be removed when exchanging clamped targets. It also allows brittle targets to be gently clamped without breaking them because the backing plate o-ring seal is loaded by the first set of screws holding the backing plate to the cathode body.

Copper backing plates generally deflect too much on 3 inch sources when under vacuum and cooling water is flowing, causing bonded targets to separate from the backing plate and clamped targets to fracture and crack, although it can be used for structurally strong targets. 304 CRES (stainless steel) is supplied as standard in this case and should be used. Copper backing plates are supplied as standard for 2" sources.