

PRODUCT BROCHURE

Wafer Chuck for Uniform Electrodeposition

The idonus Wafer Chuck for Electrodeposition (WEDC) ensures uniformity of galvanically deposited metal. In the centre of the WEDC, there is a copper ring electrode which ensures very good electrical contact with the wafer.

Wafer Chuck for Electrodeposition

Product Information

General Information

The electric contact to the wafer has a big influence on the deposition uniformity of your galvanically deposited metal. Our wafer chucks for electrodeposition have a ring-electrode to ensure the best possible electrical contact to your wafer. The back side of the wafer is not in contact with the electrolyte and therefore protected from any contamination from the bath. Chucks for any wafer size as well as single chip chucks can be fabricated.

Product Description

The chuck consists of a wafer holder and a clamping ring with an integrated ring-electrode. The wafer is placed on the holder and fixed by the clamping ring, which is screwed to the chuck. The electrical connection to the wafer is made by the clamping ring. Three precision sealing rings ensure a leak-proof clamping of the wafer. A user defined recess in the holder minimizes the stress on the clamped wafer.

The chucks are fabricated from PEEK, which are resistant to most of the electrolytes used in microfabrication. The connection to your electrical source is made by 150 cm long cable with a BNC or user defined connector.

Every application is different. We are pleased to design your custom chuck to improve your results!

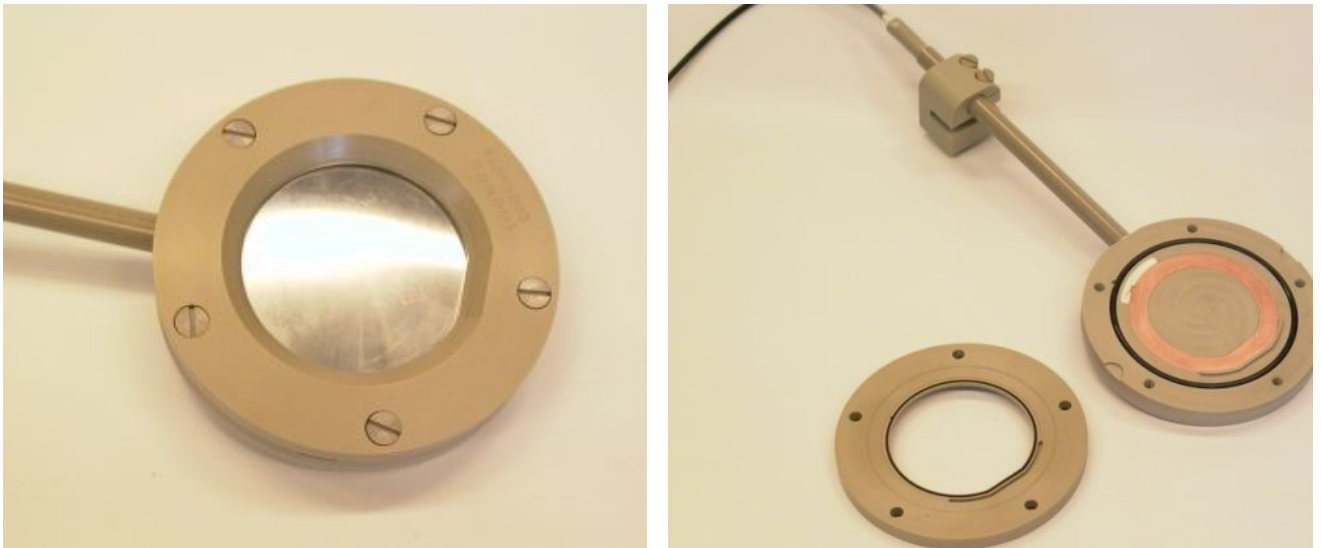


Fig. 1: Electrodeposition chuck for 75 mm wafers in PEEK. Chucks for other wafer sizes can be fabricated.

Wafer Chuck for Electrodeposition

Technical Specifications

Product Code	WEDC
Wafer sizes	2" to 8" and custom sizes possible
Galvanic bath compatibility	Upon request
Electrodeposition uniformity	Typically 80% to 85%
Materials Holder Clamping ring Screws Sealing rings	PEEK PEEK PEEK Depending on used galvanic bath
Inner dimensions (mm) Sealing ring thickness Recommended edge exclusion	2.62 10 (less on request)
Outer dimensions (mm) Diameter Thickness Screws	Wafer size +40 25 M6
Wafer thickness tolerance (µm)	Wafer thickness + / - 100
Electrode ring (mm)	$D_{\text{outside}} = \text{wafer diameter} - 6$ $D_{\text{inside}} = \text{wafer diameter} - 12$
Wafer preparation	Electrically conductive seed layer for contact to ring-electrode
Electrical connection	150 cm cable with BNC connector (male)
Temperature range (° C)	5 to 100
Configuration (specify at order) Ventilation of enclosed air	Without or with ventilation

Note: Idonus fabricates the WEDC for all wafer sizes. Please ask for specifications.

Note: Idonus reserves the right to change specifications without notice at any time (Version 14.02.2012). Copyright © 2012 Idonus Sarl.

Contact

Idonus Sarl
Rouges-Terres 61
2068 Hauterive / NEI
Switzerland

Phone : +41 32 724 44 40

Fax : +41 32 724 44 42

Email : info@idonus.com

Web : www.idonus.com