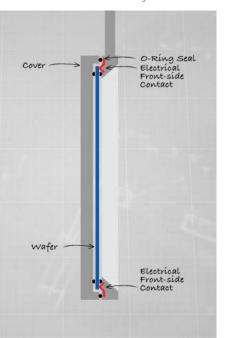
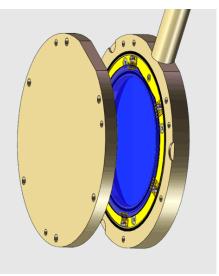
WAFER HOLDER — SINGLE EP WITH ELECTRICAL FRONTSIDE CONTACTS



Schematic diagram of the Single EP wafer holder





The Single EP wafer holders are designed for wafer electroplating applications. The tool contacts the wafer's front while protecting its back side. Single EP wafer holders have been used for more than 15 years in MEMS industry and research.

The wafer is sealed by a double precision O-ring system that reduces mechanical stress on the wafer to a minimum. A cover on the back side holds the wafers in place, fixed by six screws. As the customer-specific wafer thickness is machined as recess into the cover, all screws can be tightened using a regular wrench without sensitivity to the applied torque. This ensures a minimum mechanical stress on the fragile wafer.

The Single EP series wafer holders are equipped with gold-plated, spring-mounted electrical contacts, placed around the edge of the wafer holder's body to contact the wafer's front side. The contacts are located in between two O-ring seals, and are thus within the dry edge area. Additional contacts for high plating currents may be added upon request.

TECHNICAL SPECIFICATIONS

Product code	S-76-EP-FH	S-76-EP-FH- RLAA	S-100-EP-FH	S-100-EP-FH- LAA	
Wafer size	3" or 76 mm	3" or 76 mm	4" or 100 mm	5" or 125 mm	
Internal dimensions					
Width of the O-ring seal	1.78 mm	1.78 mm	1.78 mm	1.78 mm	
Contact diameter	73 mm	75.2 mm	7 mm	97.35 mm	
Usable plating area	65 mm	68 mm	86 mm	90.4 mm	
External dimensions					
Diameter	120 mm	120 mm	140 mm	140 mm	
Thickness	20 mm	20 mm	26 mm	26 mm	
Electrical contacts					
Number of contact pads (with 5 gold plated fin- gers each)	4 pads	4 pads	6 pads	6 pads	
Materials					
Main Body and corver- ring material	PEEK				
0-ring material	EPDM 70 – upon request FPM (Viton®) or FFPM (Kalrez®)				
Temperature range	5° C - 150° C				



AMMT GmbH — Advanced Micromachining Tools

Product code	S-150-EP-FH- RND	S-150-EP-FH	S-200-EP-FH	S-300-EP-FH	
Wafer size	6" or 150 mm	6" or 150 mm	8" or 200 mm	300 mm	
Internal dimensions					
Width of the O-ring seal	1.78 mm	1.6 mm	1.6 mm	1.6 mm	
Contact diameter	141.7 mm	149.15 mm	199 mm	199.02 mm	
Diameter of usable area	130 mm	143 mm	193 mm	293 mm	
External dimensions					
Diameter	185 mm	185 mm	240 mm	360 mm	
Thickness	28 mm	28 mm	32 mm	32 mm	
Electrical contacts					
Spring loaded pins (gold- plated)	8 contacts	8 contacts	8 contacts	12 contacts	
Materials					
Main Body and corver-ring material	PEEK				
O-ring material	EPDM 70 – upon request FPM (Viton®) or FFPM (Kalrez®)				
Temperature range	5° C - 150° C				

NOTE AMMT manufactures electroplating wafer holders for all sizes of wafers. Holders for single chips, wafer stacks, and rectangular substrates are available as well. Please inquire for specifications and prices.