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| ION`X® UHV ROUND MAGNETRONS

- INTRODUCTION
- SPECIFICATIONS
- OPTIONS
- ACCESSORIES

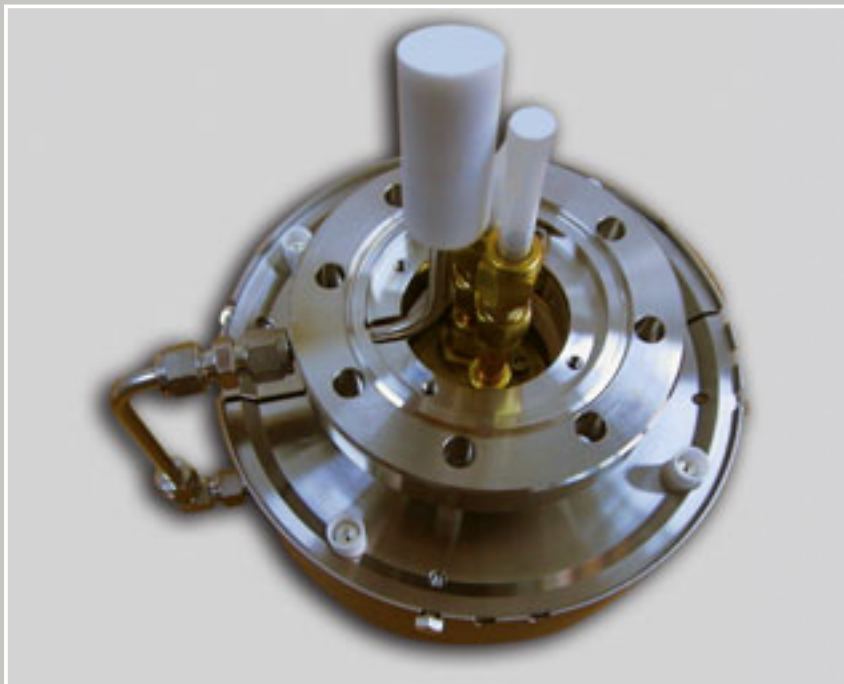


THIN FILM CONSULTING 

→ ROUND MAGNETRONS → UHV MAGNETRONS → RECTANGULAR MAGNETRONS
→ РОУНД МАГНЕТРОНЫ → УВН МАГНЕТРОНЫ → РЕКТАНГУЛЯР МАГНЕТРОНЫ

PLANAR MAGNETRON SPUTTERING SOURCE ION`X-5"UHV

» INTRODUCTION



- metallic vacuum sealing
- mounts on DN 200/63 CF
- bakeable up to 200 °C

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» PRODUCT OVERVIEW

ULTRAHIGH VACUUM MAGNETRON				
ITEM	SIZE	PART NUMBER	DESCRIPTION	VACUUM INTERFACE
4.1	5" Ø	IX5U_9100_CF200	<ul style="list-style-type: none"> • 5" UHV magnetron on DN 200 CF • targets 4–12 mm thick • discrete target clamp • welded and brazed ceramic insulator • 1x FPM seal • SmCo magnets, bakeable 200 °C • reference drawing IX5U_8100 	DN 200 CF
4.2	5" Ø	IX5U_9150_CF200	<ul style="list-style-type: none"> • 5" UHV magnetron on DN 200 CF • targets 4–12 mm thick • discrete target clamp • welded and brazed ceramic insulator • 1x internal CF seal • SmCo magnets, bakeable 200 °C • reference drawing IX5U_8150 	DN 200 CF
4.3	5" Ø	IX5U_9200_CF63	<ul style="list-style-type: none"> • 5" UHV magnetron with DN 63 CF, internal mounting • targets 4–12 mm thick • welded and brazed ceramic insulator • 1x FPM seal • SmCo magnets, bakeable 200 °C • reference drawing IX5U_8200 	DN 63 CF
4.4	5" Ø	IX5U_9250_CF63	<ul style="list-style-type: none"> • 5" UHV magnetron with DN 63 CF, internal mounting • targets 4–12 mm thick • welded and brazed ceramic insulator • 1x internal CF seal • SmCo magnets, bakeable 200 °C • reference drawing IX5U_8250 	DN 63 CF

OPTIONS

5" Ø		• argon injection	
5" Ø		• ferromagnetic targets, 4 mm Ni, 2 mm Fe	
5" Ø		• chimney	
5" Ø		• ± 30° tilt	
5" Ø		• extended flange mounting	



2" UHV
 3" UHV
 4" UHV
5" UHV
 6" UHV
 8" UHV

» SPECIFICATIONS

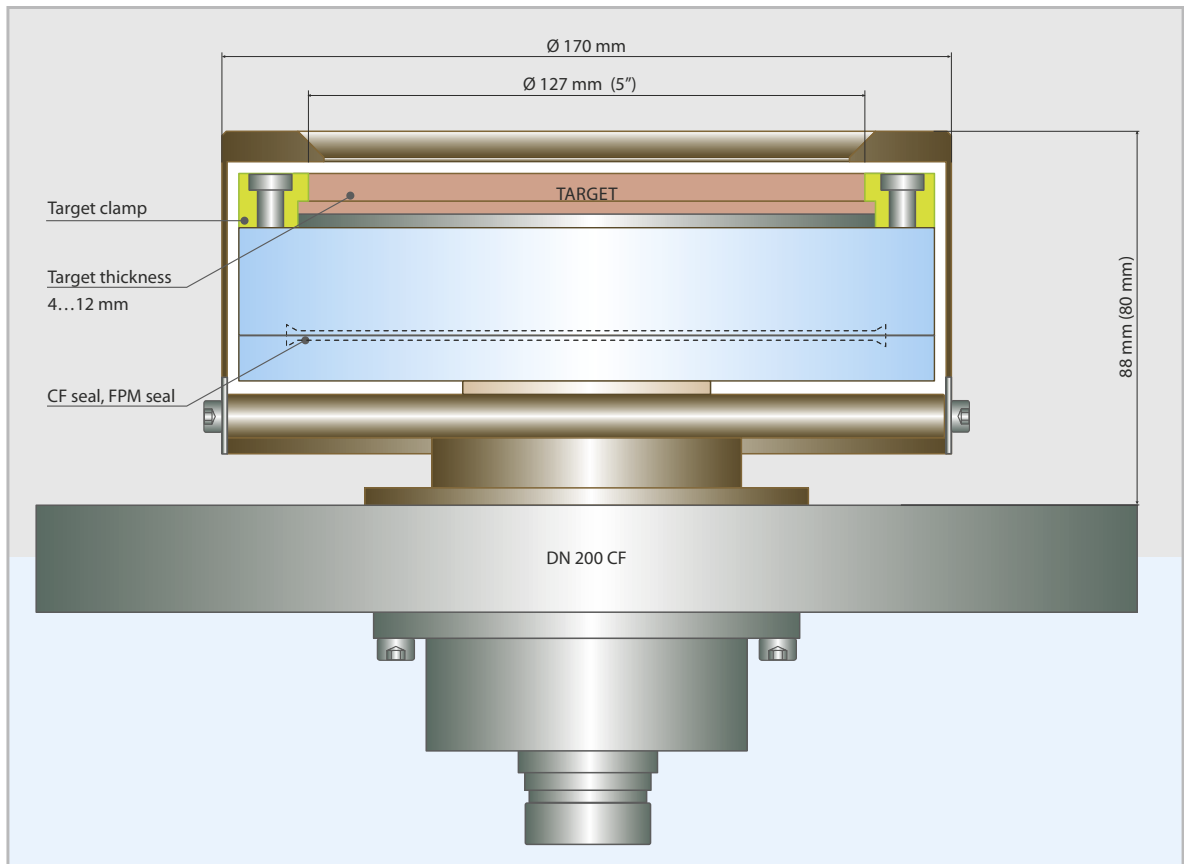
5" ULTRAHIGH VACUUM MAGNETRON				
Model No.	IX5U_9100	IX5U_9150	IX5U_9200	IX5U_9250
	5" UHV FLANGE MOUNTED		5" UHV INTERNAL	
Target				
< form	circular/planar			
< diameter	5" ± 0.25 mm			
< thickness	4 to 12 mm			
< cooling	indirect			
Operating pressure				
argon				
< nonmagnetic targets	3x10 ⁻³ to 10 ⁻¹ mbar			
< best performance	5x10 ⁻³ to 5x10 ⁻² mbar			
< vacuum sealing	welding, brazing, FPM	welding, brazing, CF	welding, brazing, FPM	welding, brazing, CF
Electrical specifications				
< max. power, watts DC/RF	2500 W DC / 1250 W RF * **			
< max. voltage DC	1000 V			
< max. current DC	10 A			
< rec. power supply	3 kW DC / 1 kW RF			
Power connector				
< connector DC/RF	7/16 type		custom type	
Cooling water				
< flow	1 l / (min x kW)			
< min. flow	2 l/min			
< max. inlet temperature	≤ 30 °C			
< max. pressure	≤ 2 bar open drain			
< water tubes	Ø 6 x Ø 4 mm PTFE			

5" ULTRAHIGH VACUUM MAGNETRON				
Model No.	IX5U_9100	IX5U_9150	IX5U_9200	IX5U_9250
Magnet array	permanent SmCo			
Bakeout temperature				
< max. temperature	200 °C			
Magnetron dimensions				
< diameter	170 mm	170 mm	170 mm	170 mm
< height	80 mm	88 mm	97 mm	105 mm
< weight	14 kg	14.5 kg	8 kg	8.5 kg
Vacuum interface	DN 200 CF		DN 63 CF	DN 63 CF
Proposed mounting style	DN 200 CF		_CF 200	_CF 200
Construction materials	stainless steel OFHC - type copper Al ₂ O ₃			
Typical rates				
	Al, 16 Å/s, 2.5 kW DC, 100 mm Cu, 32 Å/s, 2.5 kW DC, 100 mm			
Accessories & Options				
< target diameter	125 mm			
< argon injection	✓		✓	
< power connector	HN-type		custom type	
< magnet array for magnetic materials	Fe 2 mm, Ni 4 mm		Fe 2 mm, Ni 4 mm	
< ± 30° tilt	n.a.		✓	
< flange mounting	DN 250 CF		DN 200 CF / DN 250 CF	
< SS target clamps for specified thickness	✓	✓	✓	✓
< SS target clamps for bond targets	✓	✓	✓	✓

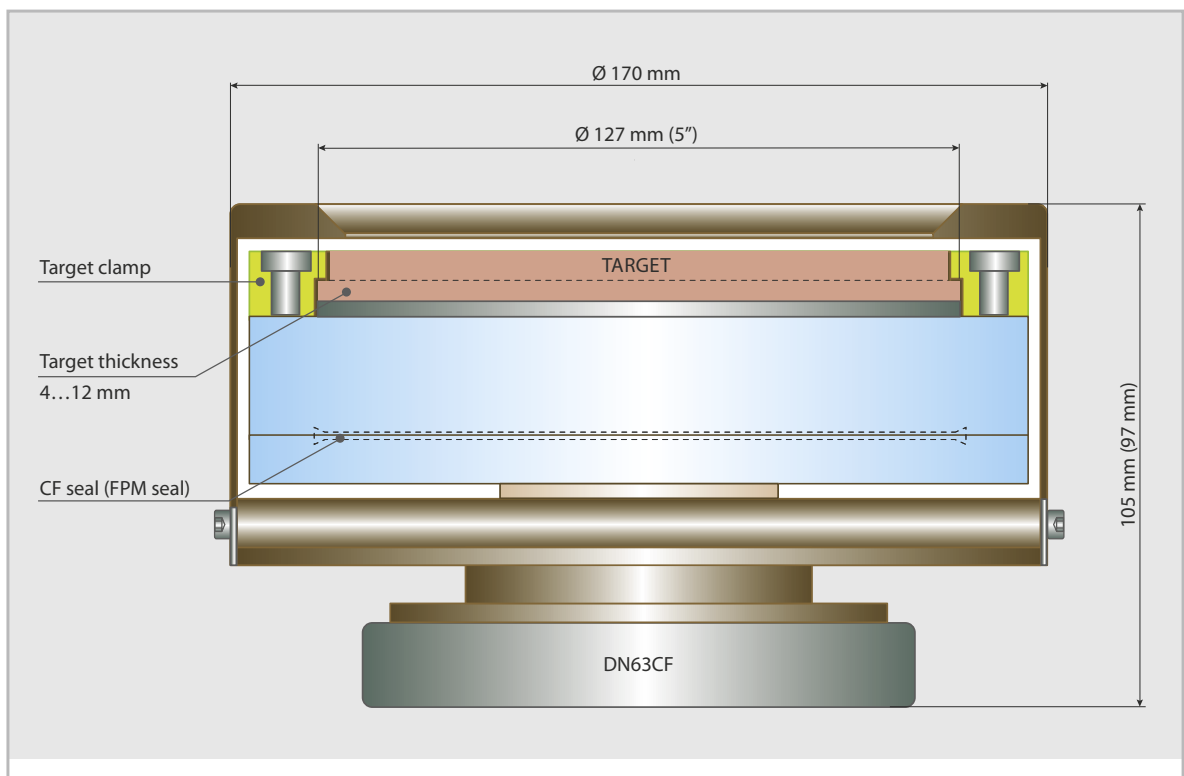
* This value refers to the magnetron itself. The maximum power is determined by the target material and bonding technique.

** RF-Version requires special connector and installation. More details on request.

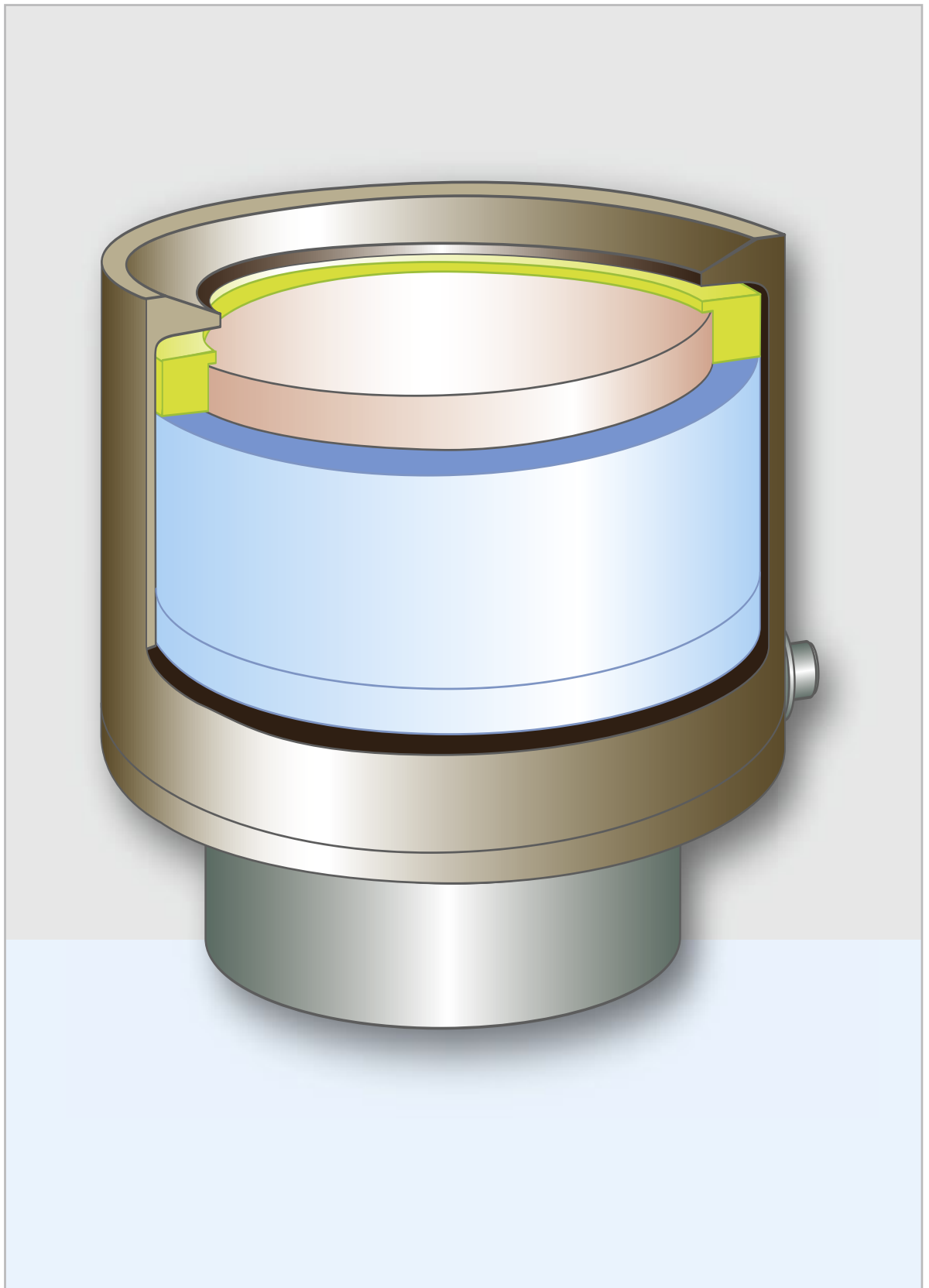
REFERENCE VIEW IX5U_81x0



REFERENCE VIEW IX5U_82x0



PLANAR MAGNETRON SPUTTERING SOURCE ION'X-5"UHV



5" UHV

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Hermann Gebhardt

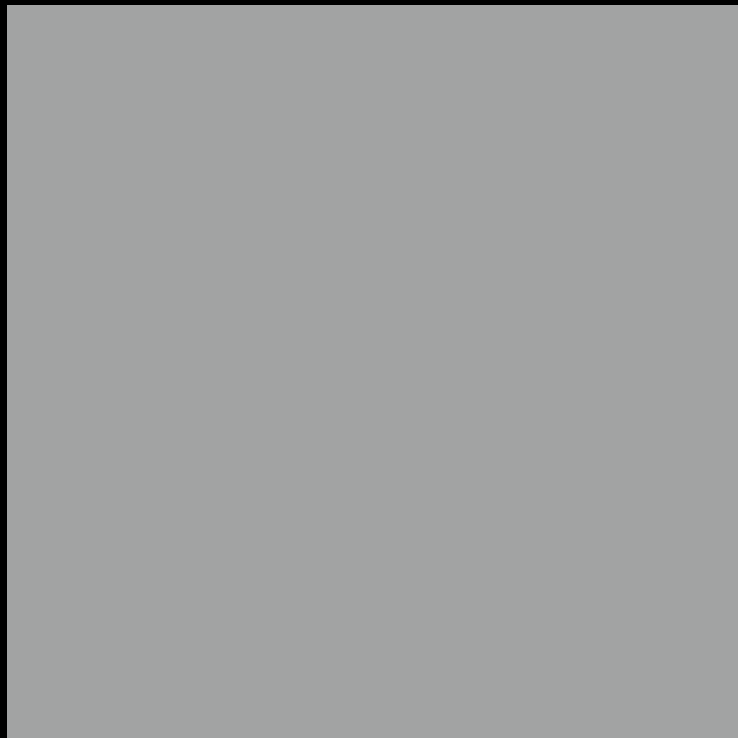
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