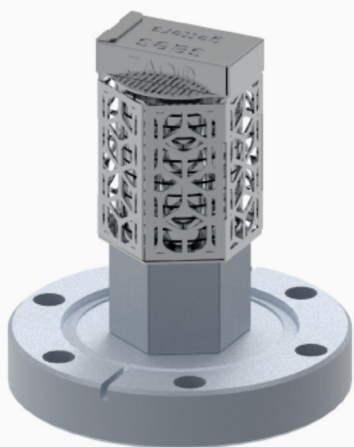


CapaciTorr® HV 100



The CapaciTorr® HV 100 pump is based on high performance SAES® ZAO® sintered porous getter disks. The pump provides high pumping performance in the high vacuum (HV) regime (i.e. 10^{-7} to 10^{-9} Torr range) for all the getterable gases like H_2 , N_2 , H_2O , CO/CO_2 and O_2 .

In order to exploit its high capacity, the getter cartridge must operate permanently warm, at moderate temperature (≈ 200 °C).

Thanks to the extremely high gas sorption capacity, the pump can cope with large air leakages or sudden gas burst typical of high vacuum systems.

The use of the pump in UHV range is also possible, by operating the getter cartridge at room temperature.

A bakeable connector provides easy and fast connection to the pump power supply to activate and power the NEG cartridge.

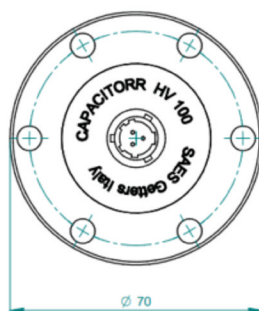
HIGHLIGHTS

General Features

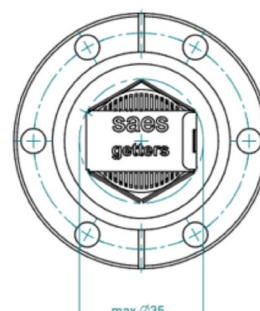
- > Extremely compact and low weight
- > High pumping speed for all active gases
- > High sorption capacity and lifetime
- > Constant pumping speed in HV and UHV
- > Oil free and vibration free
- > Operation in presence of high magnetic fields
- > Reversible pumping of hydrogen and its isotopes
- > Fast pumpdown after air venting and without baking
- > Capable of coping with large air leaks
- > Suitable for viton-sealed systems

Applications

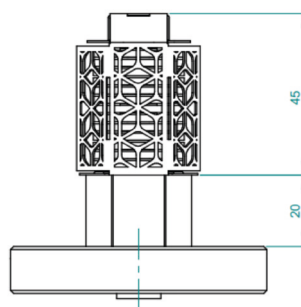
- > Improving ultimate vacuum in combination with ion, diffusion, cryogenic or turbomolecular pumps
- > Particle accelerators, synchrotron radiation sources and related equipment
- > Scanning/Transmission electron microscopes
- > Portable vacuum instrumentation and suitcases
- > Surface analysis systems
- > Process pumps for vacuum devices and deposition chambers
- > Thin films deposition systems
- > Pumping, storing and releasing hydrogen isotopes
- > Impurities removal in rare gas filled devices



BOTTOM VIEW



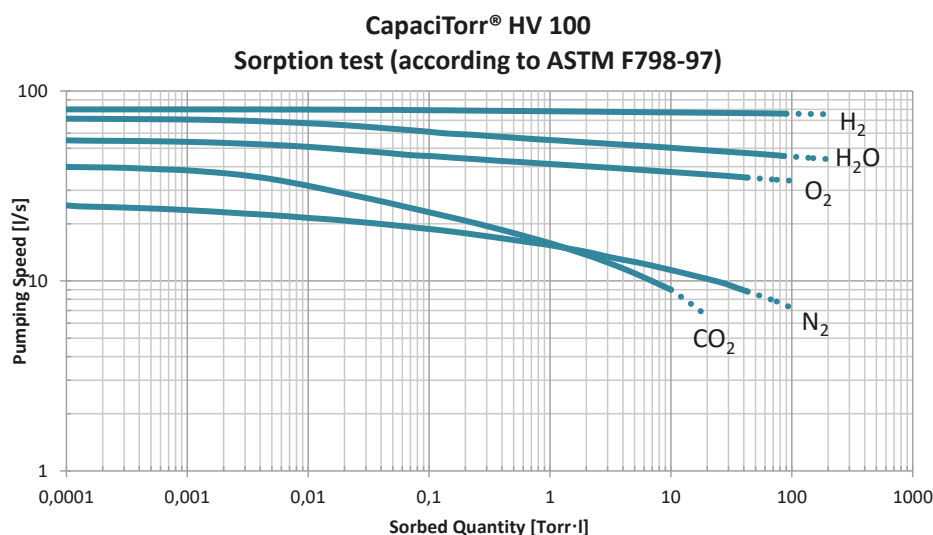
TOP VIEW



SIDE VIEW

CapaciTorr® HV 100

CapaciTorr® HV 100 - sorption test (according to ASTM F798-97)



Typical Pump Characteristics		CapaciTorr HV 100
Alloy Type		ZAO
Alloy Composition		Zr V Ti Al
Pump Mass (g)		400
Getter Mass (g)		45.5
Getter Surface (cm ²)		136
Activation Power (W)		45
Working Power (W)		5.4
Pumping Speed (l/s)	H ₂	80
	H ₂ O	70
	O ₂	55
	N ₂	25
	CO ₂ *	40
Sorption Capacity (Torr•l)	H ₂	910
	H ₂ O	86
	O ₂	43
	N ₂	43
	CO ₂ *	10
Number of sorption cycles		>20 cycles

Note: The activation power and working power are referred to the naked configuration (NEG element completely immersed in the vacuum chamber).

The "Single run" capacity is intended as the recommended absorbed quantity per run allowing more than 20 sorption cycles. In case of operation under lower gas loads or at RT, the pump can be reactivated 100 times or more. The values for H₂O are estimated.

(*) The values for CO can be assumed very similar to those reported for CO₂.

Ordering Information

Product	Product description	Code
CapaciTorr HV 100 pump	CAPACITORR HV 100	5H0155
Power supply	NEG POWER MINI [#]	3B0110
Output Cable	NEG CABLE 3P5A 3MT ^{**§}	3B0598
Body	SPECIAL BODY CF35-CF35 L=126	4H0470

(#) Other NEG POWER models which can simultaneously activate up to four pumps are available

(**) Other length cables are available on request

(§) Bakeable cables up to 250 °C, and radiation resistant (1000 Mrad)

The SAES manufacturing companies are ISO9001 certified, the Asian and Italian companies are also ISO14001 certified.

Full information about our certifications for each company of the Group are available on our website at:

www.saesgroup.com

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