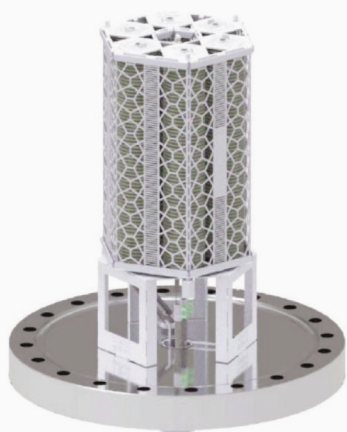


# CapaciTorr® Z 3500



## HIGHLIGHTS

### General Features

- > Extremely compact and low weight
- > High pumping speed for all active gases
- > High sorption capacity and lifetime
- > Constant pumping speed in UHV and XHV
- > Operation at room temperature without power after activation
- > Oil free and vibration free
- > Operation in presence of high magnetic fields
- > Reversible pumping of hydrogen and its isotopes

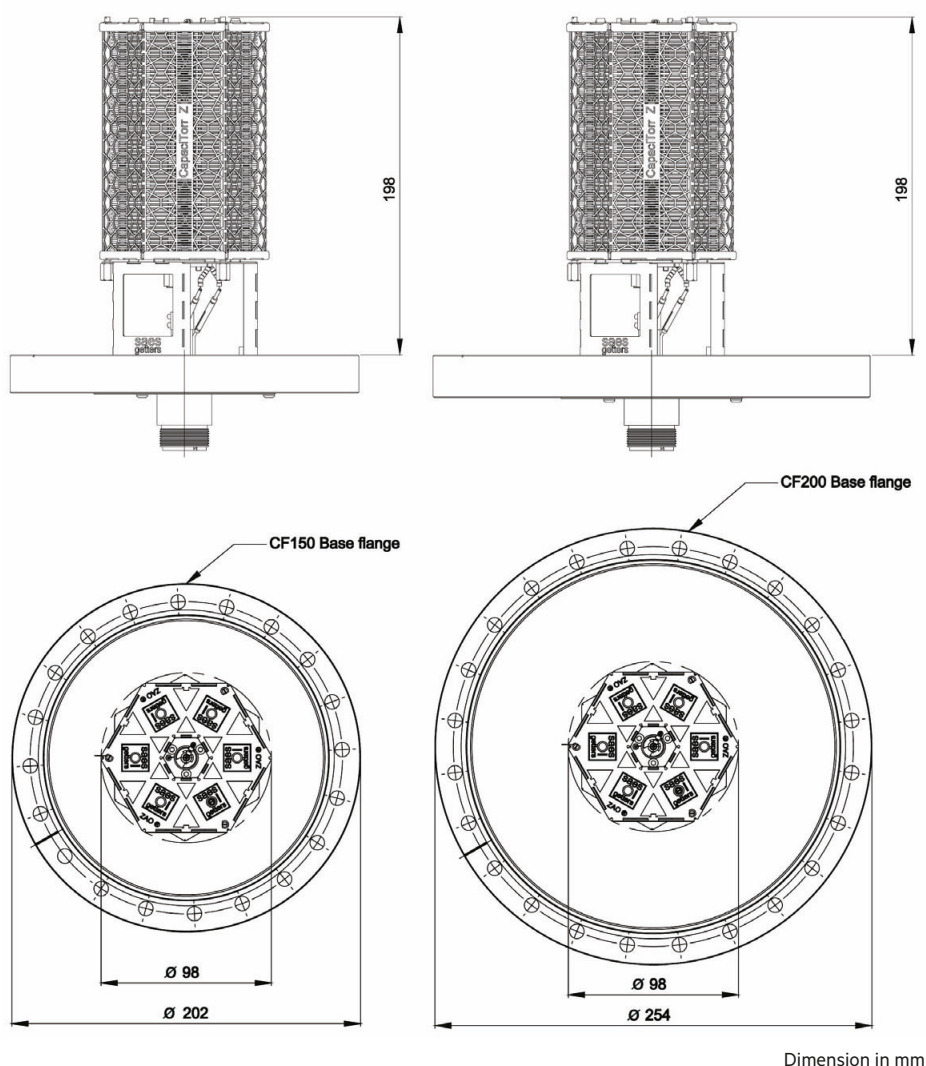
### Applications

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

The CapaciTorr® Z 3500 pump is based on high performance SAES® ZAO® sintered porous getter disks. The getter cartridge is provided separately from the CF150 or CF200 base flange, which incorporate a built-in heater that directly connects to the flange power feedthrough.

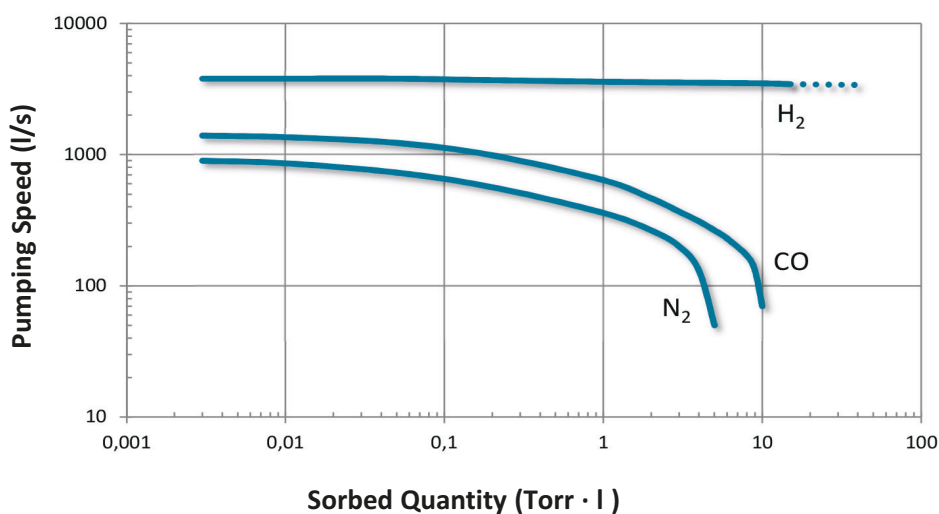
The pump is equipped with a K-type thermocouple electrically insulated within an alumina tube, for optimal temperature control during conditioning and activation. The CapaciTorr Z 3500 pump offers its best performance when installed directly in the vacuum system using the standard CF 150 or CF200 flange. Alternatively the pump can be installed as an appendage using an optional custom-made pump body.

The ZAO getter material provides superior pumping performance for H<sub>2</sub> than the St-172.



# CapaciTorr® Z 3500

## CapaciTorr® Z 3500 - sorption test (according to ASTM F798-97)



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](http://www.saesgroup.com)

**D.VS.174.1.24**

Typical Pump Characteristics		CapaciTorr Z 3500
Alloy Type		ZAO
Alloy Composition		Zr V Ti Al
Getter Mass (g)		705
Getter Surface (cm <sup>2</sup> )		3900
Activation Power (W)		360
Pumping Speed (l/s)	H <sub>2</sub>	3900
	H <sub>2</sub> O	2100
	N <sub>2</sub>	900
	CO	1400
Sorption Capacity (Torr·l)	H <sub>2</sub>	14100
	H <sub>2</sub> O	>200
	N <sub>2</sub>	5.1
	CO	10

**Note:** The activation power is referred to the “nude” configuration (NEG cartridge completely immersed in the vacuum chamber).

The values for H<sub>2</sub>O are estimated.

Capacity based on speed at 5% of the initial value in nude configuration.

>100 reactivations (sorption cycles) are possible.

## Ordering Information

Product	Product description	Code
Z 3500 Cartridge	CapaciTorr Z 3500	4H0570
Z 3500 CF150 base flange with built-in heater	CapaciTorr base flange CF150	4H0480
Z 3500 CF200 base flange with built-in heater	CapaciTorr base flange CF200	4H0482
Pump Body CF150/CF200	SPECIAL BODY CF150/CF200 L=210	4H0233
Pump Body CF200/CF250	SPECIAL BODY CF200/CF250 L=210	4H0234
NEG Pump Power Supply	NEG POWER C1#	3B0501
Output Cable	NEG Cable 6P10A 3MT <sup>§</sup>	3B0602

(#) 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)

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