

# CapaciTorr® Z 100



## 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

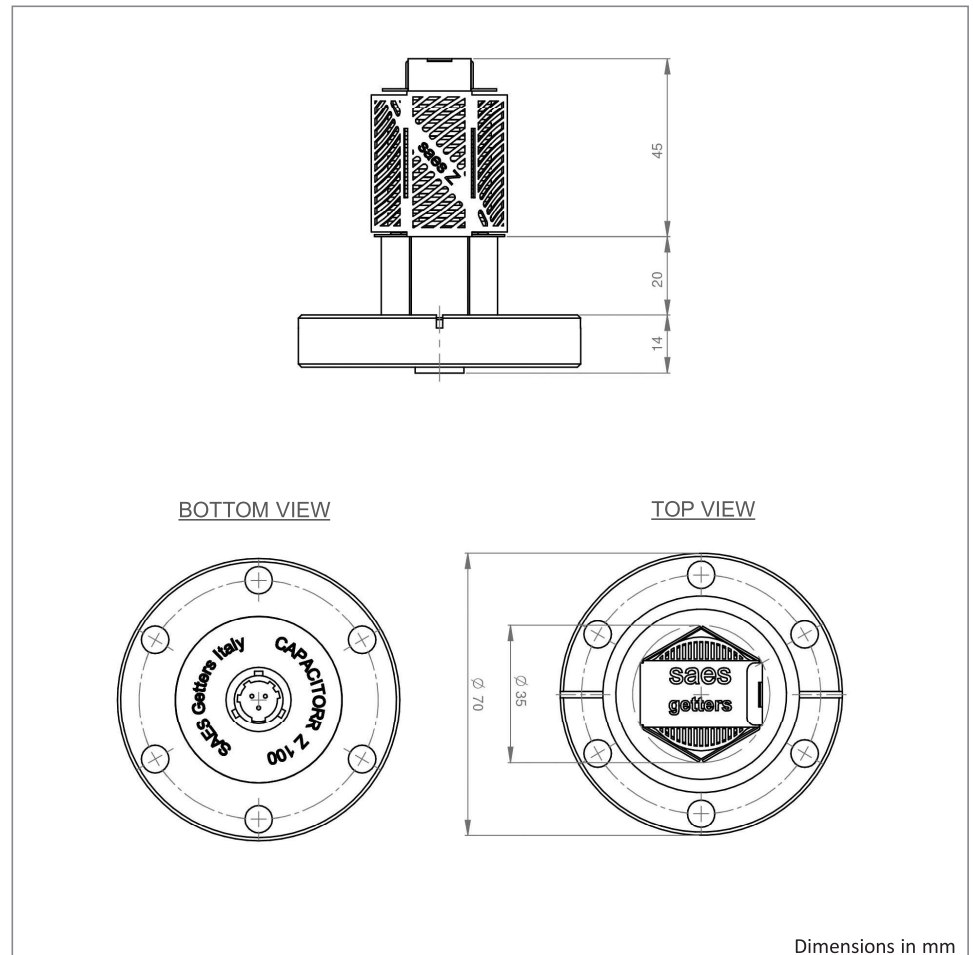
- Improving ultimate vacuum in combination with ion, diffusion, cryogenic or turbomolecular pumps
- Particle accelerators, synchrotron radiation sources
- Scanning/Transmission electron microscopes
- Portable vacuum instrumentation
- Surface analysis systems
- Process pumps for vacuum devices and deposition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

The CapaciTorr® Z 100 is a NEG pump providing large performance in an extremely compact volume. In spite of its minimal chamber intrusion and small weight, it features impressive pumping speed for H<sub>2</sub> and for the other active gases present in UHV or XHV systems (H<sub>2</sub>O, O<sub>2</sub>, CO<sub>2</sub>, CO and N<sub>2</sub>).

The pump is based on high performance SAES® ZAO® sintered porous getter disks, and comes on a standard CF35 base flange with built-in heater that directly connects to the flange power feedthrough (bakeable up to 400 °C). A suitable connector provides easy and fast connection to the pump power supply for the activation.

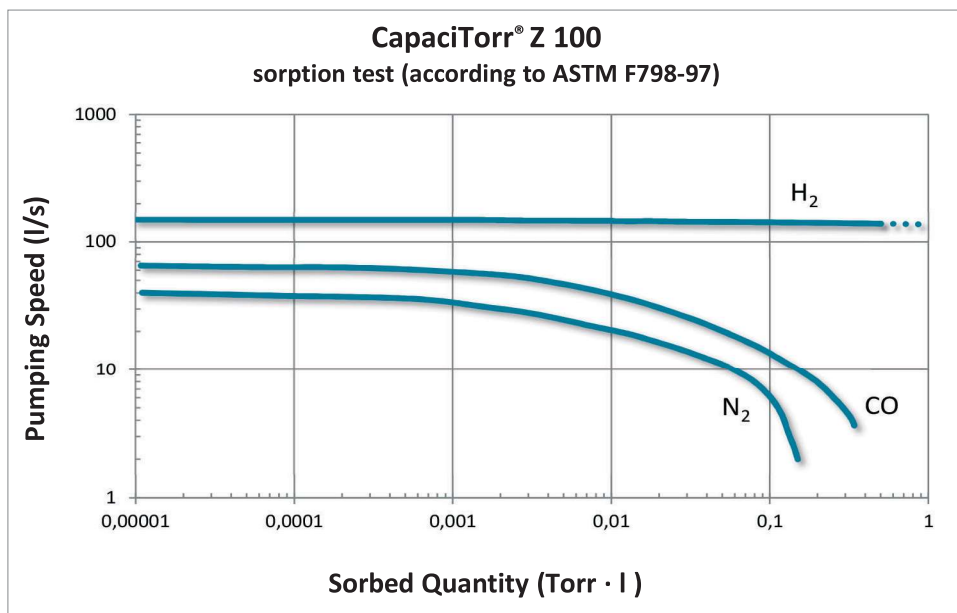
The pump is the perfect choice in applications where space and weight constraint, absence of vibrations and minimal electromagnetic interference must be coupled to excellent pumping performance and UHV-XHV standards.

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



Dimensions in mm

**saes**  
group



Typical Pump Characteristics		CapaciTorr Z 100
Alloy Type		ZAO
Alloy Composition		Zr V Ti Al
Getter Mass (g)		30
Getter Surface (cm <sup>2</sup> )		165
Activation Power (W)		40
Pumping Speed (l/s)	H <sub>2</sub>	150
	H <sub>2</sub> O	100
	N <sub>2</sub>	40
	CO	65
Sorption Capacity (Torr·l)	H <sub>2</sub>	600
	H <sub>2</sub> O	5
	N <sub>2</sub>	0.15
	CO	0.35

**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
CapaciTorr Z 100 Pump	CapaciTorr Z 100	5H0217
NEG Pump Power Supply	NEG POWER MINI#	3B0110
Output cable	NEG cable 3P5A 3MT*§	3B0598

(#) 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 Group manufacturing companies are ISO9001 certified and the 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)

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