

# CapaciTorr® D 1000



## 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

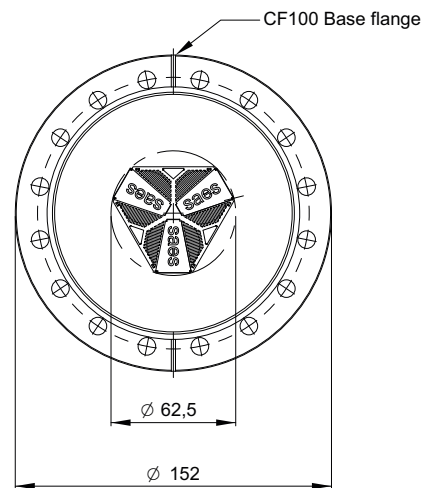
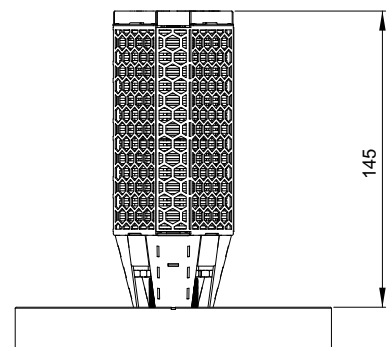
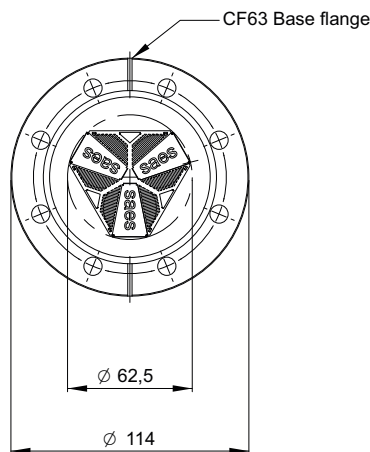
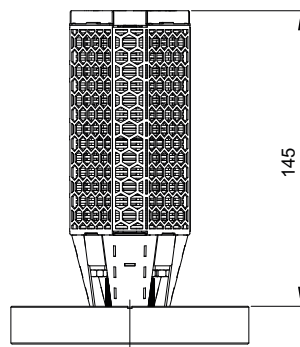
### Applications

- > 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® D 1000 pump is based on high performance SAES® St 172 sintered porous getter disks. The getter cartridge is provided separately from the CF63 or CF100 base flange, and incorporates 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.

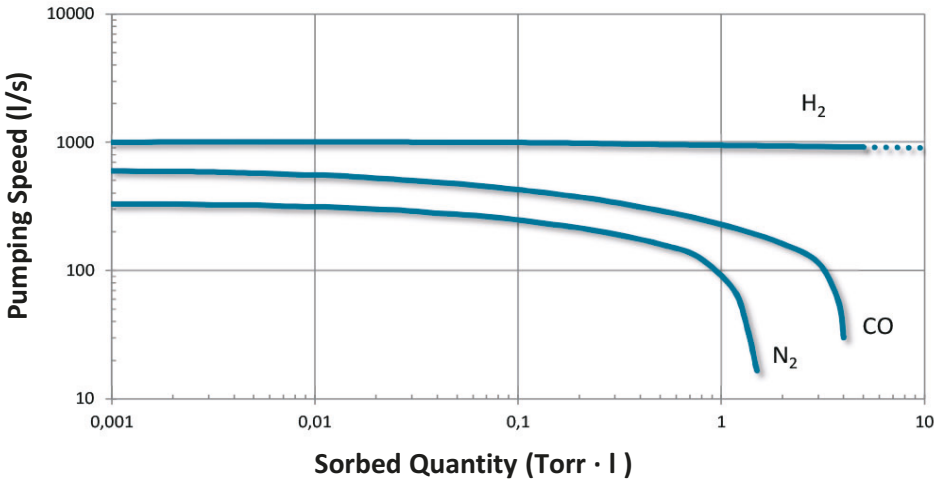
The CapaciTorr D 1000 pump offers its best performance when installed directly in the vacuum system using the standard CF63 or CF100 flange. Alternatively, the pump can be installed as an appendage using an optional pump body.



Dimensions in mm

# CapaciTorr® D 1000

CapaciTorr® D 1000 - sorption test (according to ASTM F798-97)



Typical Pump Characteristics		CapaciTorr D 1000
Alloy Type		St 172
Alloy Composition		Zr V Fe
Getter Mass (g)		136
Getter Surface (cm²)		1140
Activation Power (W)		190
Pumping Speed (l/s)	H <sub>2</sub>	1000
	H <sub>2</sub> O	900
	N <sub>2</sub>	330
	CO	600
Sorption Capacity (Torr•l)	H <sub>2</sub>	1360
	H <sub>2</sub> O	60
	N <sub>2</sub>	1.5
	CO	4

**Note:** The activation power are 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
D 1000 Cartridge with built-in heater	CapaciTorr D 1000	4H0468
D 1000 CF63 base flange	CapaciTorr base flange CF63	4H0467
D 1000 CF100 base flange	CapaciTorr base flange CF100	4H0469
Pump Body CF63	BODY CF63/CF63 L=170	4H0241
Pump Body CF100	BODY CF100/CF100 L=205	4H0224
NEG Pump Power Supply	NEG POWER C1 <sup>#</sup>	3B0501
Output Cable	NEG cable 6P5A 3MT <sup>*\$</sup>	3B0854

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

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