

# Agilent Vaclon Plus 55

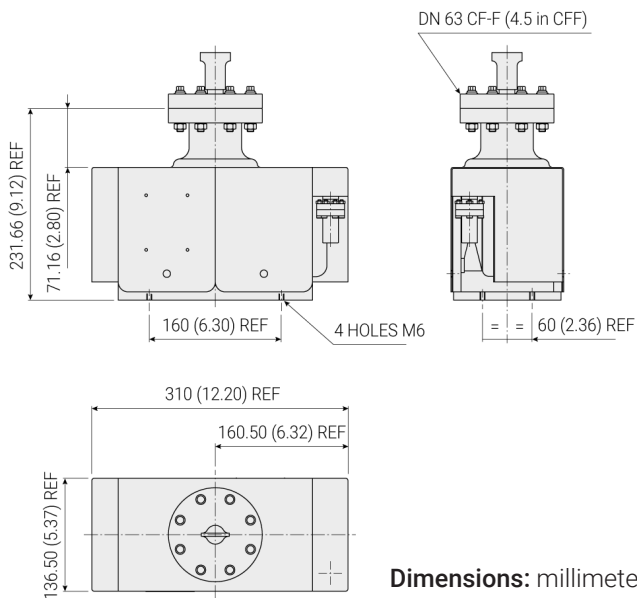


## Product description

The Agilent Vaclon Plus 55 pump is a 55 L/s ion pump regularly used in general-purpose ultrahigh and extreme high vacuum systems for evacuating electron devices, sensitive electron microscopes, and obtaining UHV pressures in particle accelerators, synchrotron rings, and surface analysis applications. The patented StarCell element delivers best-in-class pumping speeds for noble gases and hydrogen, and highest capacity for methane, argon, and helium. Options such as optical baffles, integral heaters, and high-voltage feedthroughs are available for easy system integration.

## Features and benefits

- Select from StarCell, diode, and noble diode elements to provide the best pumping speed for different gases
- Available with ConFlat 4.5" nonrotatable flange, additional 2.75" ConFlat port, and a choice of feedthroughs (Fischer, King, DESY, Varian, SHV 10kV (Safeconn)) in different orientations
- No moving parts ensures vibration-free operation for sensitive applications
- Low leakage current provides stable vacuum pressure reading
- Low magnetic field minimizes system interference
- Vacuum processed at > 400 °C and pinched off under vacuum to ensure cleanliness and vacuum integrity prior to installation
- Customizable with different high-voltage feedthroughs, body geometries, additional ports, and pumping cell arrangements, and available with optically shielded baffles, external heaters, and magnetic shielding to meet your needs
- SEM versions are available with ultralow leakage current and high stability for minimal electrical interference
- Special testing procedures for your specific requirements can be added

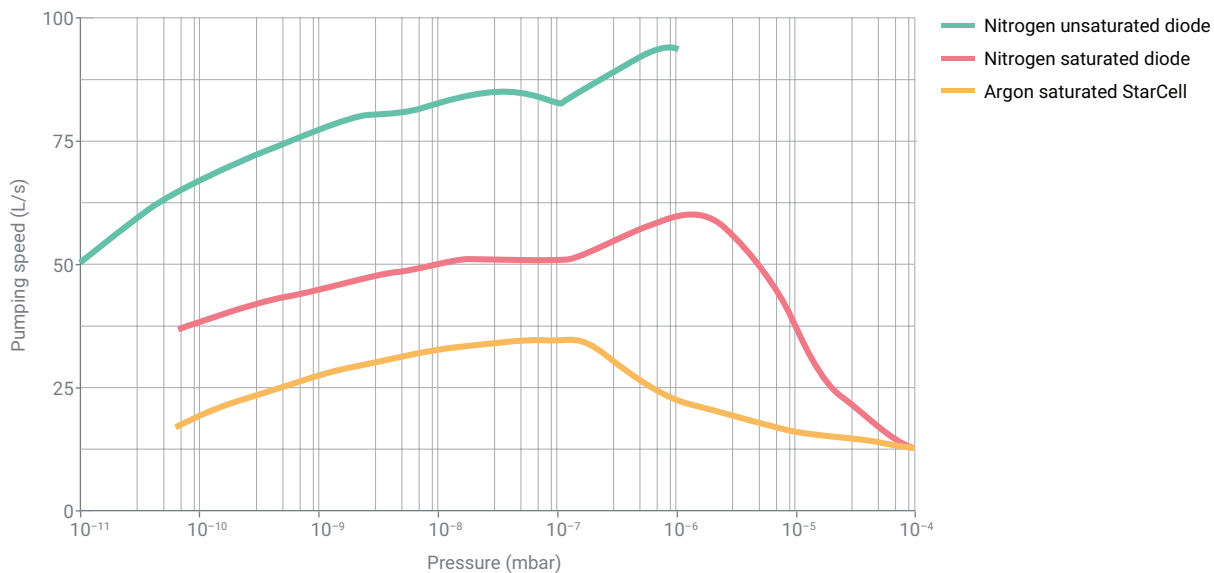


Dimensions: millimeters (inches)

Vaclon Plus 55 Technical Specifications			
	StarCell	Noble Diode	Diode
Nominal Pumping Speed for Nitrogen*	50 V	53 V	55 V
Operating Life at $1 \times 10^{-6}$ mbar	80,000 h	50,000 h	50,000 h
Maximum Starting Pressure	$\leq 5 \times 10^{-2}$ mbar	$\leq 1 \times 10^{-3}$ mbar	$\leq 1 \times 10^{-3}$ mbar
Ultimate Pressure	Below $10^{-11}$		
Inlet Flange	DN 63 CF-F (4.5 in CFF) AISI 304 ESR SST		
Maximum Baking Temperature	Pump without magnets Pump with magnets HV cable	450 °C 350 °C 220 °C	
Weight	18 kg (39 lb)		

\* Tested according to ISO/DIS 3556-1-1992. SEM version available on request. Customized design available on request.

### Vaclon Plus 55 pumping speed versus pressure



## Ordering information

Description	Part Number
<b>Vaclon Plus 55 Pumps</b>	
Diode with Ferrite Magnets	9191310
Diode with Additional DN 40 CF-F (2.75 in CFF) Port*	9191313
Diode without Magnets	9191314
StarCell with Ferrite Magnets	9191340
StarCell with Additional DN 40 CF-F (2.75 in CFF) Port*	9191343
StarCell without Magnets	9191344
Noble Diode with Ferrite Magnets	9191320
Noble Diode without Magnets	9191324
* Side port non rotatable. Agilent offers these pumps with the SHV 10kV (SAFECONN) feedthrough option. Please contact Agilent or your local representative.	
<b>4UHV Controller</b>	
200 W neg	9299010
200 W pos	9299011
<b>IPCMini Controller</b>	
IPCMini, 110/220 V Fischer HV, neg	X3602-64000
IPCMini, 110/220 V Fischer HV, pos	X3602-64001
Ion pump controllers (4UHV and IPCMini) are available in multiple configurations. For a complete list of part numbers, please refer to their respective data sheets.	
<b>HV Cables</b>	
HV Cable, 4 m (13 ft), Fischer Controller to Fischer Pump Side, Bakeable, Radiation Resistant, with Interlock	9290705
HV Cable, 7 m (23 ft), Fischer Controller to Fischer Pump Side, Bakeable, Radiation Resistant, with Interlock	9290707
HV Cable, 10 m (33 ft), Fischer Controller to Fischer Pump Side, Bakeable, Radiation Resistant, with Interlock	9290708
HV Cable, 20 m (66 ft), Fischer Controller to Fischer Pump Side, Bakeable, Radiation Resistant, with Interlock	9290709
Other cable lengths are available on request.	
<b>Replacement Parts</b>	
HV Feedthrough with Interlock	9595125
Heaters*, 120 V, Input Power 250 W	9190071
Heaters*, 220 V, Input Power 250 W	9190070
* Contact your local Agilent representative to order replacement heaters or upgrade existing pumps.	

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