

# Agilent Vaclon Plus 40 Pump

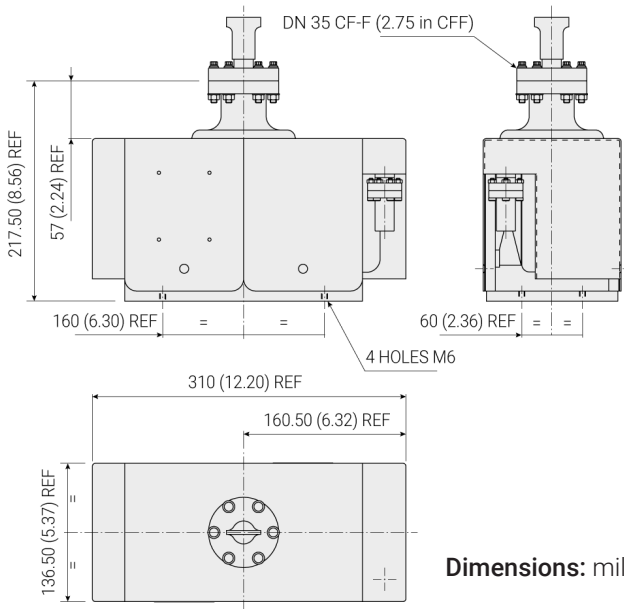


## Product description

The Agilent Vaclon Plus 40 pump is a medium-sized 40 L/s ion pump for use in general-purpose UHV and XHV systems for evacuating electron devices, scanning electron microscopes (SEM), and in academic and high-energy physics (HEP) research. This pump delivers stable vacuum and low leakage current, protecting critical components in SEM applications. The combination of our patented anode design and StarCell element deliver a powerful solution to optimize E-beam columns. User-selected options such as high-voltage (HV) 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 2.75" nonrotatable flange, additional 2.75" ConFlat port, and a choice of feedthroughs (Fischer, King, DESY, Varian, SHV 10 kV (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

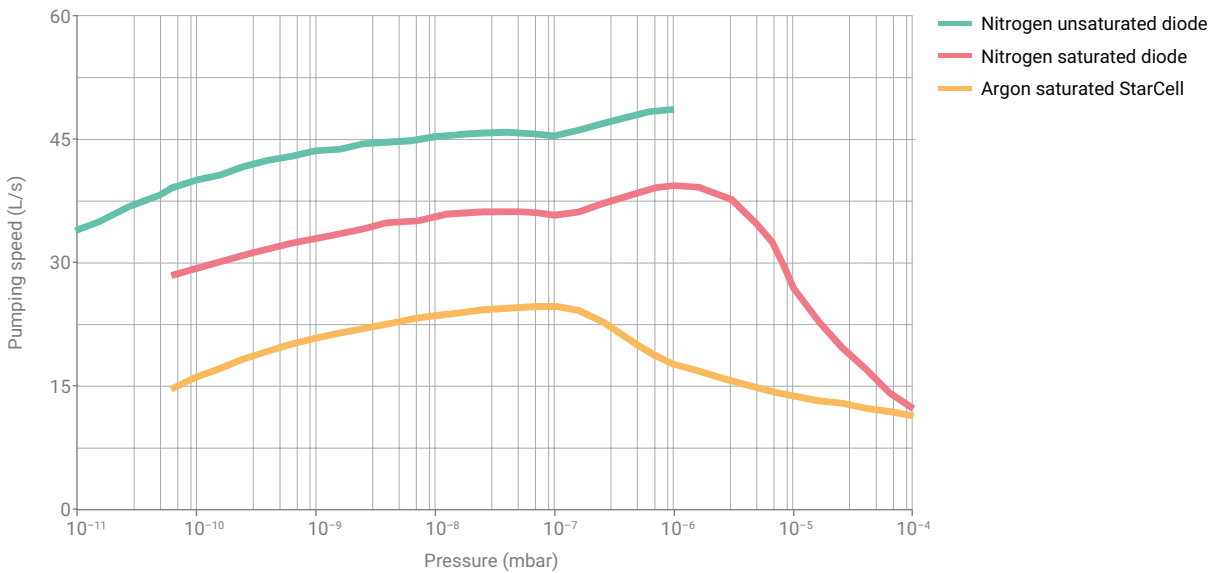


Dimensions: millimeters (inches)

Vaclon 40 Plus Technical Specifications			
	StarCell	Noble Diode	Diode
Nominal Pumping Speed for Nitrogen*	34 L/s	36 L/s	40 L/s
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 40 CF-F (2.75 in CFF) AISI 304 ESR SST		
Maximum Baking Temperature	Pump without magnets Pump with magnets HV cable	450 °C 350 °C 220 °C	
Weight	17 kg (37 lb)		

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

### Vaclon Plus 40 pumping speed versus pressure



## Ordering information

Description	Part Number
<b>Vaclon 40 Plus Pumps</b>	
Diode with Ferrite Magnets	9191210
Diode with Ferrite Magnets and DN 40 CF-F (2.75 in CFF) Port*	9191213
Diode without Magnets	9191214
StarCell with Ferrite Magnets	9191240
StarCell with Ferrite Magnets and DN 40 CF-F (2.75 in CFF) Port*	9191243
StarCell without Magnets	9191244
Noble Diode with Ferrite Magnets	9191220
Noble Diode without Magnets	9191224
* Side port nonrotatable. 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.	

## Contact information

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