

Agilent Vaclon Plus 40 Pump

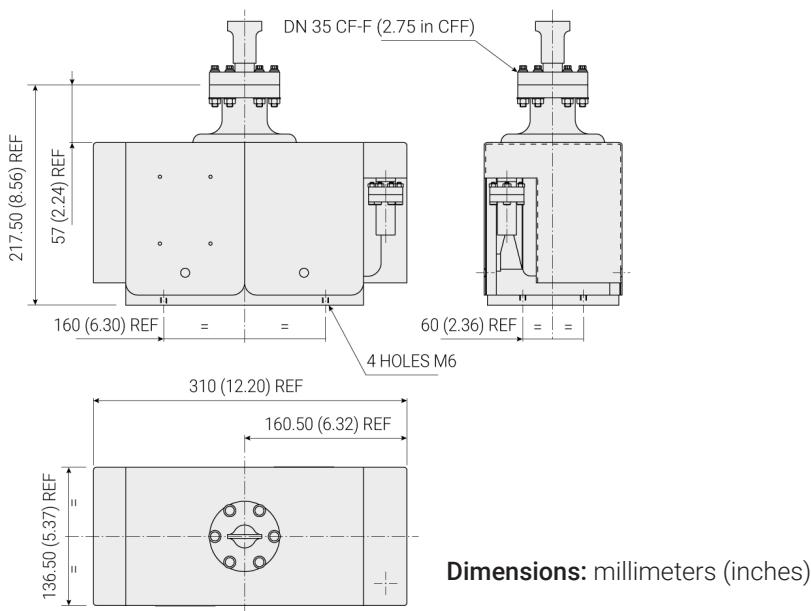


Product description

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

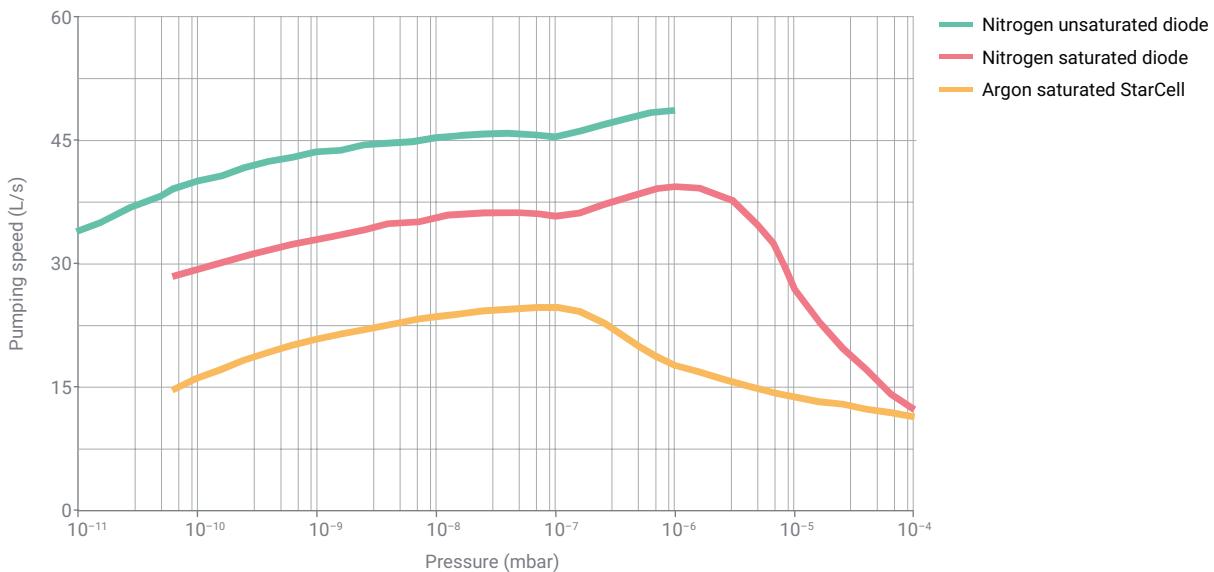
- Select from StarCell, diode, and noble diode elements to provide the best pumping speed for different gases
- Available with ConFlat 2.75" nonrotatable flange, additional 2.75" ConFlat port, and a choice of feedthroughs (Fischer, King, DESY, Varian, SHV 10 kV (Safeconn)) in different orientations
- 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



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 1×10^{-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
Vaclon 40 Plus Pumps	
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.	
4UHV Controller	
200 W neg	9299010
200 W pos	9299011
IPCMini Controller	
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.	
HV Cables	
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.	
Replacement Parts	
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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For more information, please contact your Agilent representative or visit www.agilent.com/chem/vacuum where you can chat live with a vacuum expert.



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This information is subject to change without notice.

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