

Agilent Vaclon Plus 20 Pump

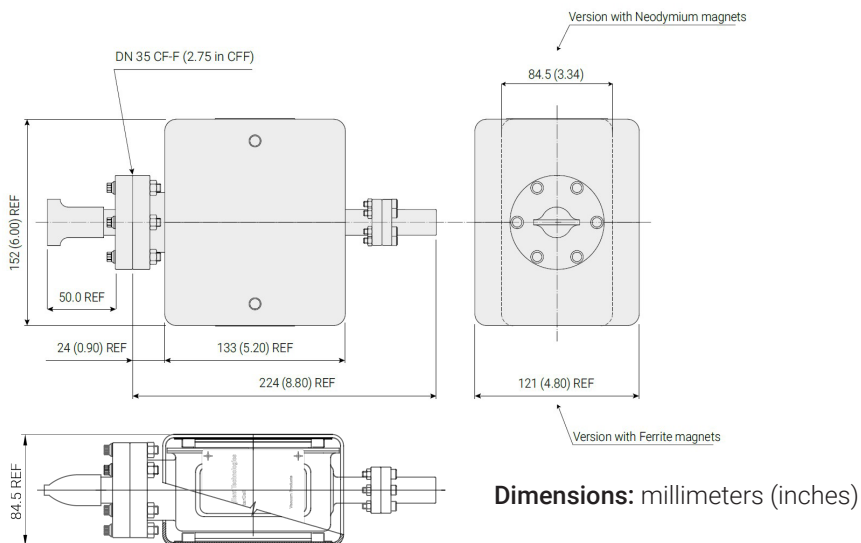


Product description

The Agilent Vaclon Plus 20 pump is a medium-sized 20 L/s ion pump. It is ideal for a wide range of ultrahigh and extreme high vacuum applications for academic and high-energy physics (HEP) research, and equipment used for medical imaging and radiation therapy. This pump is available with a diode element for general use, and StarCell and Noble Diode elements when a gas mixture is being pumped. The patented StarCell element handles high amounts of noble gases and hydrogen and provides the highest speed and capacity for methane, argon, and helium. Customer-selected options such as element type, integral heaters, and high-voltage feedthroughs are available for easy system integration and consistent particle-free UHV pumping performance.

Features and benefits

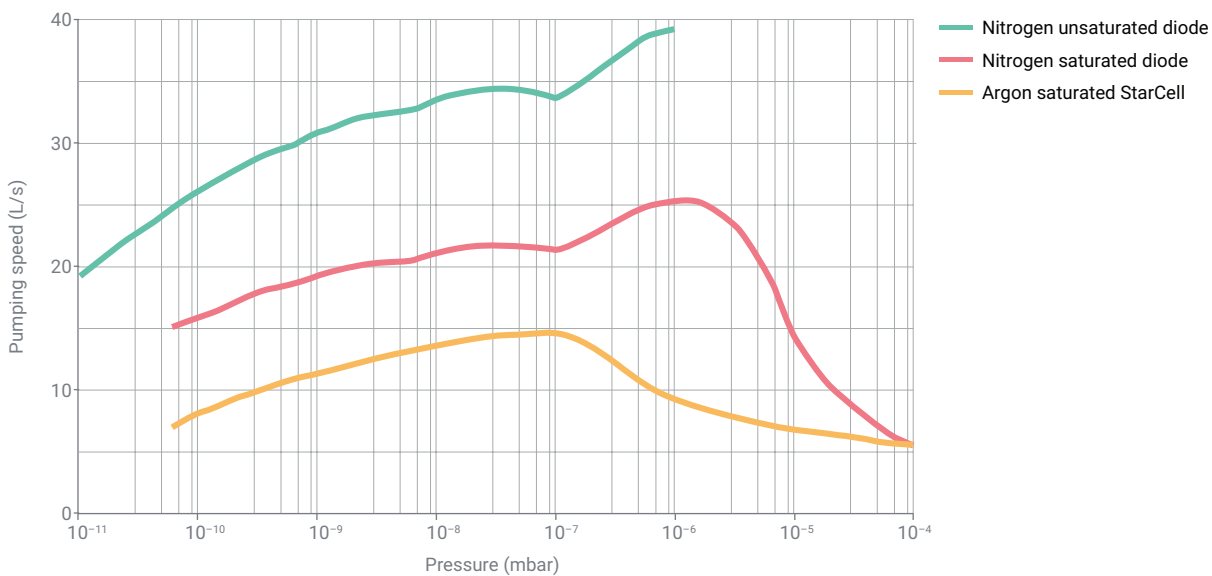
- Select from StarCell, diode, and noble diode elements to achieve the best pumping speed for different gases
- Available with ConFlat 2.75" rotatable or nonrotatable flange and a choice of feedthroughs (Fischer, King, DESY, Varian, SHV 10 kV (Safeconn)) in different orientations
- No moving parts ensures 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 available with ultralow leakage current and high stability for minimal electrical interference
- Special testing procedures for your specific requirements can be added



Vaclon Plus 20 Technical Specifications			
	StarCell	Noble Diode	Diode
Nominal Pumping Speed for Nitrogen*	20 L/s	22 L/s	27 L/s
Operating Life at 1×10^{-6} mbar	80,000 hrs	50,000 hrs	50,000 hrs
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 (With Ferrite Magnets)	Net: 5.4 kg (11.9 lb), shipping 11 kg (24 lb)		
Weight (With Rare-Earth Magnets)	Net: 4.7 kg (10.4 lb), shipping 9 kg (19.9 lb)		

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

Vaclon Plus 20 pumping speed versus pressure



Ordering information

Description	Part Number
Vaclon Plus 20 Pumps	
Diode with Ferrite Magnets	9191115
Diode without Magnets	9191114
StarCell with Ferrite Magnets	9191145
StarCell without Magnets	9191144
StarCell with Rare Earth Magnets (Slim Body)	9191146M018
Noble Diode with Ferrite Magnets	9191125
Noble Diode without Magnets	9191124
Agilent offers these pumps with the SHV 10 kV (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
Vaclon Plus 20 Diode Ferrite Magnet Assembly	9191001
Vaclon Plus 20 Noble Diode Ferrite Magnet Assembly	9191002
Vaclon Plus 20 StarCell Ferrite Magnet Assembly	9191004
Vaclon Plus 20 Rare-Earth Magnet Assembly	9191005
Heaters*, 120 V, Input Power 140 W	9191110
Heaters*, 220 V, Input Power 140 W	9191111
* Please contact your local Agilent representative to order heaters for pump replacements or upgrades.	

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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.



www.agilent.com/en/product/vacuum-technologies/ion-pumps-controllers/medium-ion-pumps/vacion-plus-20-pump

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This information is subject to change without notice.

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