



Specifications subject to change without notice.

Vindum Pump Model	VP-3K Ambient VP-3K High Temp	VP-6K Ambient VP-6K High Temp	VP-12K Ambient VP-12K High Temp	VP-20K Ambient VP-25K Ambient
Maximum Pressure Rating:	3,500 psi (207 bar)	6,500 psi (413 bar)	12,000 psi (827 bar)	20,000 psi (1,379 bar) 25,000 psi (1,725 bar)
Minimum Flow Rate:	0.00005 ml/min	0.00003 ml/min	0.000015 ml/min	0.000007 ml/min
Maximum Flow Rate:	90 ml/min (0-2,000 psi)	54 ml/min (0-4,000 psi)	29 ml/min (0-7,500 psi)	12 ml/min (0-12,000 psi)
Flow rate & volume accuracy:	+/- 0.1% of set point	+/- 0.1% of set point	+/- 0.1% of set point	+/- 0.1% of set point
Rate & volume repeatability:	+/-0.05% of set point	+/-0.05% of set point	+/-0.05% of set point	+/-0.05% of set point
Displacement Resolution:	0.0240 µl/step	0.0135 µl/step	0.0074 µl/step	0.0034 µl/step
Single Stroke Volume:	40 ml	20 ml	10 ml	5 ml
Compression Ratio:	5.4 : 1	4.5 : 1	3.7 : 1	3.8 : 1
Pressure Accuracy: (Optional High Accuracy Titanium Transducers)	+/- 0.25% of Full Scale (+/-0.10% of FS)	+/- 0.25% of Full Scale (+/-0.10% of FS)	+/- 0.25% of Full Scale (+/-0.10% of FS)	+/- 0.25% of Full Scale (+/-0.10% of FS)
Pressure Resolution:	0.1 psi	0.1 psi	0.1 psi	0.1 psi
Capable of Vacuum Filling:	Yes	Yes	Yes	Yes
Operating Environment Operating Environment (portion of pump inside oven)	5°C - 40°C (41°F-104°F) 5°C-160°C (41°F-320°F)	5°C - 40°C (41°F-104°F) 5°C-160°C (41°F-320°F)	5°C - 40°C (41°F-104°F) 5°C-160°C (41°F-320°F)	5°C - 40°C (41°F-104°F)
Fluid Temp. (Ambient Pumps) Fluid Temp (Heated Pumps)	To 65°C (150°F) To 160°C (320°F)	To 65°C (150°F) To 160°C (320°F)	To 65°C (150°F) To 160°C (320°F)	To 65°C (150°F)
Pump Dimensions (HxWxL) (excludes cables)	19 x 6 x 9 inches 26 x 9 x 10 inches	19 x 6 x 9 inches 26 x 9 x 10 inches	19 x 6 x 9 inches 26 x 9 x 10 inches	19 x 6 x 9 inches
Fluid Connection Fittings	Autoclave Engineers SW250 Female (1/4" Speed-Bite)	Autoclave Engineers SW250 Female (1/4" Speed-Bite)	Autoclave Engineers W125 Female (1/8" Speed-Bite)	Autoclave Engineers F250C Female (1/4" High Pressure)
Safety Blowout Disk Port Connection (tubing connection to SBD assembly)	Autoclave Engineers W125 Female (1/8" Speed-Bite)	Autoclave Engineers W125 Female (1/8" Speed-Bite)	Autoclave Engineers W125 Female (1/8" Speed-Bite)	3/8" NPT Female
Power Supply Requirement	100-240VAC, 47-63 Hz	100-240VAC, 47-63 Hz	100-240VAC, 47-63 Hz	100-240VAC, 47-63 Hz



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Wetted Parts	VP-3K Ambient VP-3K High Temp	VP-6K Ambient VP-6K High Temp	VP-12K Ambient VP-12K High Temp	VP-20K Ambient VP-25K Ambient
Cylinder Barrel:	316 Stainless Steel or Hastelloy® C-276	316 Stainless Steel or Hastelloy® C-276	316 Stainless Steel or Hastelloy® C-276	316 Stainless Steel or Hastelloy® C-276
Piston:	Zirconia Silicon-Carbide	Zirconia Silicon-Carbide	Zirconia Silicon-Carbide	Silicon-Carbide
Main Piston Seal: (Other options available)	UHMW-PE Flouraz	UHMW-PE Flouraz	UHMW-PE Flouraz	UHMW-PE
Valve Seal: (Other options available)	Viton or UHMW-PE Viton or UHMW-PE	Viton or UHMW-PE Viton or UHMW-PE	Viton or UHMW-PE Viton or UHMW-PE	Viton, AFLAS, or other custom materials by request
Manifold Face Seals: (Other options available)	Viton or UHMW-PE Viton or UHMW-PE	Viton or UHMW-PE Viton or UHMW-PE	Viton or UHMW-PE Viton or UHMW-PE	Viton or AFLAS