

## New SP200VCST Variable-Flow Cased Pumps

These low-cost peristaltic pumps are among the most compact, most powerful variable-flow stepper-driven pumps in the market. Flow rates are available from 0 to 162 ml/min. They adapt easily to almost any instrument application. Enjoy the benefits of peristaltic pumps in your fluid transfer application.

Select from three different tubing sizes, two motor speeds and a variety of tubing materials. Tygon® A60G tubing offers the longest pump life, Silicone is the softest with higher flow rates. Viton® provides excellent chemical resistance. Modular power supplies and battery packs are available.

The pumpheads have ABS plastic housings, acetal rotor assembly with four stainless steel rollers. These Vdc stepper motors are reversible and rated for continuous-duty. Silicone and Tygon® A60G pump systems are supplied with polypropylene fittings. Viton® systems are supplied with PVDF fittings. One year warranty.

**Variable-flow  
Reversible  
Precise stepper motors**



Compact, variable-flow  
SP200 Vdc Stepper pumps.

### SPECIAL FEATURES

*Fluid only contacts the tubing  
Rated for continuous-duty  
Self-priming, run dry without damage  
Variable-flow 24Vdc motors  
Consistent metering capability*

### SPECIFICATIONS

	Tygon®, Viton®	Silicone
<b>Max. Fluid Pressure:</b>	30 psig (2 bar)	10 psig (0.7 bar)
<b>Max. Suction Lift:</b>		
1.6 mm ID	16-ft (4.8 m) H <sub>2</sub> O	16-ft (4.8 m) H <sub>2</sub> O
3 and 5 mmID	25-ft (7.5 m) H <sub>2</sub> O	25-ft (7.5 m) H <sub>2</sub> O
<b>Flow Range:</b>	See ordering table (page 2)	
<b>Accuracy:</b>	±1% full scale	
<b>Repeatability:</b>	±1% full scale	
<b>Max. Fluid Temp.:</b>	93°C (200°F)	
<b>Duty Cycle:</b>	Continuous;	
<b>Operating Temp.:</b>	0 to 50°C (32 to 122°F)	
<b>Enclosure:</b>	ABS	
<b>Wetted parts:</b>	Various tubing materials	
<b>Power:</b>	24Vdc; 2A	
<b>Dimensions (W x H x D):</b>	84 x 140 x 97 mm; (3.3 x 5.5 x 3.8 in.)	
<b>Shipping Wt:</b>	0.9 kg (2 lbs)	

### APPLICATIONS

*Chemical metering  
Reagent dispensing  
Chemical waste removal  
Analytical instruments  
Research & Development*

### SP200VCST Max Flowrates (ml/min)

Motor	Tubing ID (mm)					
RPM	Vdc	Amps	5	3	1.6	
150	24	2A	162	81	29	
38	24	2A	41	20	7	

Flow rates listed are nominal and will vary depending upon fluid viscosity and back pressure. Specifications listed are for Tygon A60G (formerly Norprene) tubing. Silicone flow rates are approx 10-20% higher. Viton flow rates slightly lower.

# SP200VCST-Peri Pumps

## SP200VCST Ordering Information – (Flow rates listed are for Tygon® A60G tubing; Silicone is 10-20% higher).

Flow Rate ml/min	Tubing ID	RPM Range	V-Flow,I/O	Pump Part No. V-Flow,I/O/R	V-Flow,I/O/R,Rem
<b>24Vdc Pumps - Variable-flow; up to 2A current draw; Select Tubing Material below.</b>					
0.2 to 162	5 mm (3/16")				
0.1 to 81	3 mm (1/8")	0.15 to 150	SP20XV1-259ST	SP20XV1R-259ST	SP20XV3R-259ST
0.05 to 29	1.6 mm (1/16")				
0.05 to 41	5 mm (3/16")				
0.03 to 20	3 mm (1/8")	0.03 to 38	SP20XV1-253ST	SP20XV1R-253ST	SP20XV3R-253ST
0.01 to 7	1.6 mm (1/16")				

V-Flow=Variable-flow; I/O=On/Off Switch; I/O/R=On/Off/Reverse Switch; Rem=Remote Speed (0-5Vdc); Rem Start/Stop; Remote Direction.

Flow rates listed are nominal and will vary depending upon fluid viscosity and back pressure.

24 Vdc systems are available. Other motor rpms and special tubing options are available on special order. Call for details.

## Tubing Set Material Selection

Part No:	Description	Sizes Incl.(mm)	Fitting	Application Recommendations
SP201-980AF	Tygon® A60G	5, 3, 1.6 ID	PP	Longest flex life, Black, Good with Acids/Bases
SP201F-980AF	Tygon® A60F	5, 3, 1.6 ID	PP	Longest flex life, Beige, Food-Grade
SP204L-980AF	Tygon® LFL	5, 3, 1.6 ID	PP	Long flex life, Clear, USP, FDA
SP200-980AF	Silicone	5, 3, 1.6 ID	PP	Good flex life, Translucent, General Purpose
SP200P-980AF	Tygon® 3350 (Sil)	5, 3, 1.6 ID	PP	Good flex life, Translucent, USP, ultra smooth
SP204P-980AF	Tygon® F-4040	5, 3, 1.6 ID	PP	Good flex life, Yellow Transl, Fuel/Lubricant
SP204X-980AF	Tygon® XL-60	5, 3, 1.6 ID	PP	Good flex life Clear, General Purpose
SP201R-980AF	Tygon® Chemical	5, 3 ID	PP	Long flex life, Beige, Chem Resistant liner
SP202-980AF	Viton®	5, 3, 1.6 ID	PVDF	Good flex life, Black, FDA, Chem Resist-Organics

## VAC power supply

Convert these compact drives to VAC models with a compact power supply. 5.5 OD x 2.5mm ID (center + ) connector.

Add the suffix to the pump part number to include the power supply.

-U Power supply, 110-240Vac/12Vdc, 2.1A; US Std plug.

-E Power supply, 110-240Vac/12Vdc, 2.1A; Europ. plug.

Specifications subject to change.

APT Instruments provides no warranty on usage of pumps or life of tube. Immersion and life tests are recommended prior to use.

SmallPumps—TM Advanced Product Technology, LLC Viton—Reg TM DuPont Dow Elastomers LLC

Tygon—Reg TM Saint Gobain Performance Plastics Corp.

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