

The Peristaltic Pump Collar Datasheet

Large volumes of dilute and particle-laden samples can be loaded on to Proteus spin columns using the peristaltic pump collar. The peristaltic pump collar (Fig. 1) locks the Proteus sealing cap securely to the spin column barrel to ensure that high sample loading flow rates can be used (Fig. 2).

Fig 1. Peristaltic pump collar.

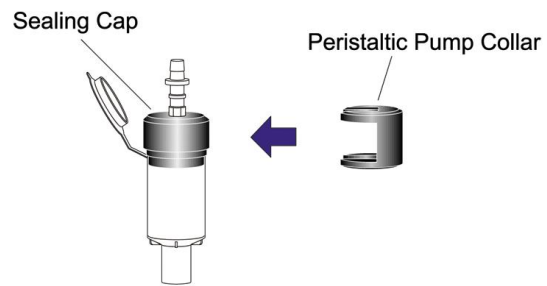
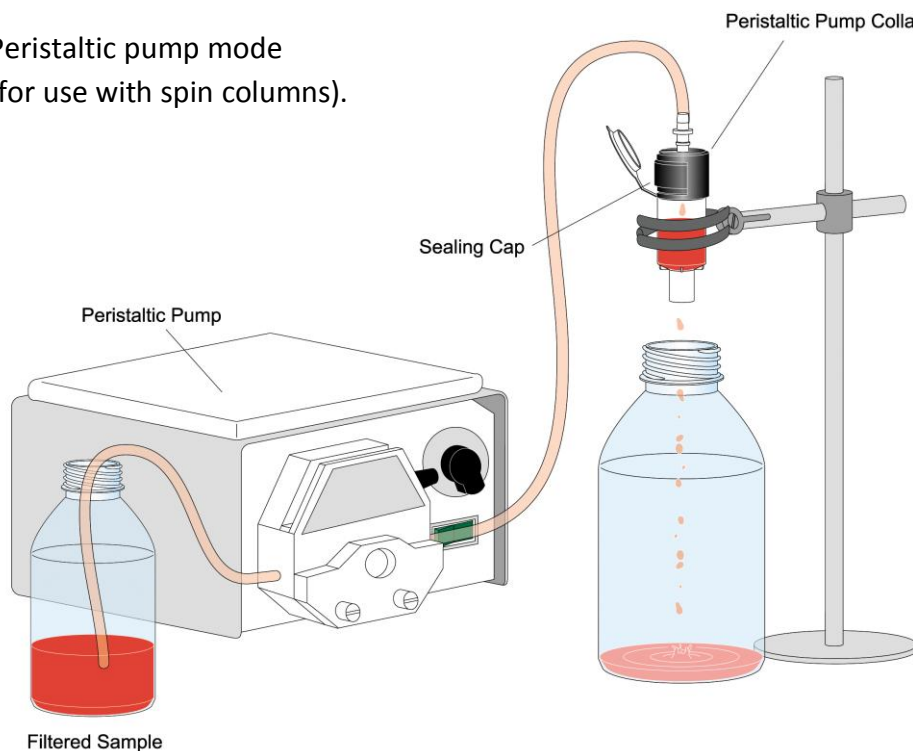


Fig 2. Peristaltic pump mode
(for use with spin columns).



Materials Included:

Peristaltic Pump Collar:
Peristaltic Pump Tubing:

Black Acetal

Nalgene 180 tubing (L/S 16, 4 ft). Tubing is configured for 0.8 ml/rev. For example when taking into account the back pressure exerted by the resin column, 10-20 rpm would provide a flow rate of approximately 5-8 ml/min.

Required Equipment:

Peristaltic pump:	Variable speed peristaltic pump capable of speeds less than 20 rpm e.g. Masterflex L/S pump.
Peristaltic pump head:	Pump head designed for L/S 16 tubing e.g. Masterflex L/S Easy-Load pump head for precision tubing. Pump head can accommodate L/S 13, L/S 14, L/S 16, L/S 25, L/S 17, and L/S 18 precision tubing.

Operation:

1. Load the correct size tubing in to the peristaltic pump head. (For optimum tubing life, keep the tubing straight where it exits and enters the pump).
2. Insert the white fittings on to the end of the peristaltic pump tubing. Connect one end of the tubing **tightly** to the barb connector on the sealing cap. Place the other end of the tubing into the filtered sample reservoir.
3. Fill the column barrel with 18 ml filtered sample. Push the sealing cap **fully** into the top of the column barrel and then slide the peristaltic pump collar on to the sealing cap. Turn the collar (a near ¼ turn) until one of its legs slides under the hinge of the column barrel lid (Fig. 2). Ensure that the collar is positioned over the top rim of the column barrel.
4. Run the peristaltic pump at the desired flow rates noting that 10-20 rpm (using the Type 16 tubing) is equivalent to flow rates of approximately 5-8 ml/min.
5. The Proteus spin column can be run in peristaltic mode only. All you need to purchase is the peristaltic pump collar, sample loading cap and peristaltic pump tubing configured in cat no. PC-PPCSC (Fig. 2).

Ordering Information:

Product	Units	Order Code
Pump Collar and Loading Cap (Includes: Peristaltic Pump Collar, Sample Loading Cap, Nalgene 180 (Type 16) PVC Tubing)	1	PC-PPCSC

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