

Needle Port Accessories Part Numbers & Descriptions

PART NUMBER	DESCRIPTION
7012	Stainless Steel Loop Filler Point
9012	PEEK Loop Filler Port
9013	PEEK Needle Port
7125-054	Needle Port Cleaner
9125-076	Suction Needle Adapter (for Model 9725)

Syringes and Syringe Needles (Square Cut) Part Numbers & Descriptions

PART NUMBER	DESCRIPTION
7200	2.5 µL Removable Needle Syringe
7200-003	Replacement Needles for 7200, 3/pkg
7215	#22 gauge Stainless Steel Needle for Luer Tip Syringe
3725-056	#16 gauge PEEK Needle for Luer Tip Syringe
3725-086	#16 gauge Stainless Steel Needle for Luer Tip Syringe
7201	10 µL Syringe
7202	25 µL Syringe
7205	50 µL Syringe
7210	100 µL Syringe
7225	250 µL Syringe
7250	500 µL Syringe
7252	2.5 mL Luer Tip Syringe
7255	5.0 mL Luer Tip Syringe
7260	25 mL Luer Tip Syringe

Mounting Bracket Accessories Part Numbers & Descriptions

PART NUMBER	DESCRIPTION
5060	Teflon Rotary Valve Mounting Bracket
7160	Mounting Panel
7160-010	Valve Angle Bracket
7160-029	Ring Stand Mounting Bracket
5060-007	"MX" Ring Stand Mounting Bracket

Miscellaneous Part Numbers & Descriptions

PART NUMBER	DESCRIPTION
6810	Rheodyne Wrench
7161-020	Position Sensing Switch for 7125
7161-016	Position Sensing Switch for 7010, 7410, 7000, 7030, 7040
7165	Position Sensing Switch for 7250
7315	0.5 µL pore x 1.5 mm ID Column Inlet Filter
7315-010	Replacement Filter Discs for 7315, 5/pkg
7335	0.5 µL pore x 3.0 mm ID Column Inlet Filter
7335-010	Replacement Filter Discs for 7335, 5/pkg
7312-008	0.18 mm ID x 60 mm Connecting Tube
7312-009	0.13 mm ID x 60 mm Connecting Tube

Tech Tip #5

Sample Loop Loading: Partial-Filling vs. Complete-Filling

Partial-Filling

Use the partial-filling method if you need to conserve sample, or if you want to vary sample volume frequently.

In partial-filling, the syringe sets the volume injected onto the column. There is no sample waste, and the volume injected onto the column is equal to that dispensed from the syringe. Reproducibility is 1.0% relative standard deviation (RSD). The volume of the sample loaded is limited to half the sample loop volume. For example, the most you can load into a 200 µL sample loop is 100 µL. See Figure 1. This limitation is due to the manner in which fluids move in tubes. Fluidic movement in tubes affects reproducibility. See Tech Tip #6 on page 27.

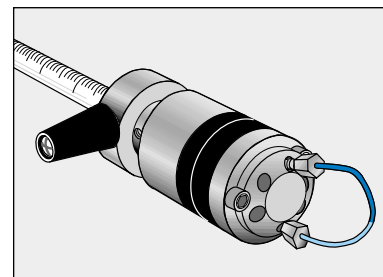


Fig. 1. The sample loop can fill up to half the loaded volume in partial-filling method.

Complete-Filling

Use the complete-filling method if you have a sufficient amount of sample with which to work, if you do not vary sample volume, or if you need high reproducibility.

In complete-filling, the loop sets the volume loaded onto the column. You use excess sample (two to five loop volumes) to replace all the mobile phase in the loop. See Figure 2. Change the loop to vary the sample volume. Reproducibility is typically 0.1% RSD for loop sizes 5 µL. Accuracy is limited as loop volumes are nominal.

Q: Which method should I use and which Rheodyne sample injectors use this method?

A: There are two types of injectors available: dual mode and single mode. Dual mode injectors allow both partial- and complete-filling whereas single mode injectors allow only complete-filling. See Sample Injectors on pages 12-16.

If you are collecting experimental data, sample is scarce, and/or you want to use different sample volumes, a dual mode injector with a large volume sample loop is appropriate. Only dual mode injectors allow the partial-filling method with which you can easily vary your volumes (up to half your sample loop volume) by setting the syringe volume. Once you begin routine analysis, and/or you have an abundance of sample, either a dual mode or single mode injector is appropriate. Both types of injectors allow complete-filling method with which you fill the sample loop in excess. Complete-filling maximizes the reproducibility of your results.

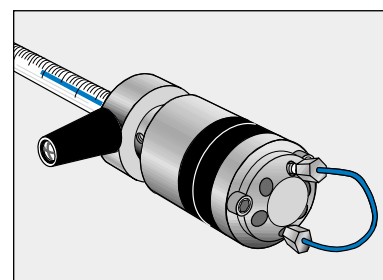


Fig. 2. The sample loop is filled in excess in complete-filling method.