

communicate to automatically coordinate the injection sequence, enabling the solvent manager to provide additional pressure at the exact moment the sample manager switches its injector valve to the inject position, to introduce the low-pressure sample.

1.1.4.2 Gradient Smart Start

Before each sample injection, a sample manager typically performs wash sequences and then aspirates the appropriate sample volume. When these tasks are completed, the solvent manager begins to deliver the gradient to the injection valve. The dwell volume of the system, which affects the amount of time required for this gradient to reach the column, can be a significant component of the overall cycle time.

The Gradient Smart Start feature adjusts when an injection is made relative to when it starts. In this way, when you transfer methods, the feature compensates for differences in dwell volume between chromatographic systems. Moreover, it automatically coordinates all pre-injection operations, minimizing delays that would increase the overall cycle time. In doing so, the feature makes it possible to begin gradient operation before or during the sample manager's pre-injection functions, resulting in significant time savings.

1.1.4.3 Wash Plungers

Precipitated material that remains on the solvent manager's pump plungers can damage the high-pressure seals. The Wash Plungers function washes the seals and plungers with seal wash solvent, to remove any precipitate. You can use the Wash Plungers function as needed, or run the function as part of the No-Flow Shutdown feature.

Tip: The Wash Plungers function is not available when the module is operating.

1.1.4.4 No-Flow Shutdown

The No-Flow Shutdown feature runs the Wash Plungers function after the solvent manager remains idle for a specified time interval. This feature prevents deposition of precipitated material on the pump plungers and plunger seals while the system is idle.

1.1.4.5 Automatic Prime

When you enable the solvent manager's Automatic Prime function, the system primes the lines of the optional solvent selection valve when a new line is selected. You can specify the flow rate and duration of the prime for the new solvent line.

Example: If a first injection uses line D1 and a second injection uses line D2, the solvent manager primes line D2 between the first and second injections.

1.1.4.6 Flow Ramping

Using the Flow Ramping function, you specify the rate at which the solvent manager increases or decreases flow.