Older models of the SRI 8610C FID Medical Cannabis Potency GC were equipped with an on-column injection system while current versions are equipped with a heated injector. Either injection system can be used to accurately quantify cannabinoids in medical cannabis.

SRI prefers the heated injection because it improves separation and leads to more accurate quantification of the cannabinoids. It comes standard with the current Medical Cannabis Potency GC. As a service to our Medical Cannabis FID GC owners, we will upgrade on-column injectors to heated injectors for the special low-price of $500.00.

The on-column injector takes several seconds to decarboxylate the cannabinoids in the first meter of the column. Because of this, a smear or “ski-slope” effect can be seen in some samples where THC tails off into CBG and sometimes CBN. This can make it harder to integrate and quantify these cannabinoids. This problem can be remedied with the installation of a heated injector, which instantly decarboxylates the cannabinoids at 250º C before they enter the column.

On-column Injector

Heated Injector

“Ski-slope” effect: Notice the tail on the THC peak and how it blends into the CBG in some actual flower samples.
Heated vs. On-Column Injection for Medical Cannabis Potency Testing

To the right is a chromatogram of a typical medical cannabis flower on an on-column injector. Notice the ski-slope effect with the large THC peak tailing into CBG.

The same medical cannabis extraction run on a heated injector. Notice the crisp THC peak with baseline separation between it and CBG. Also, notice how cannabinoids present in trace amounts (CBC, Δ8-THC, CBN) have more pronounced peaks.