

Installing the Agilent 6890 Oven Insert for Fast Chromatography

Kit G2646-60500

The 6890 Oven Insert for Fast Chromatography reduces the oven volume so that the column and sample heat more quickly, yielding faster separation and faster chromatography. Furthermore, the smaller volume oven cools faster than a full-sized oven, reducing the overall analytical cycle time. The Oven Insert kit is pictured in Figure 1.

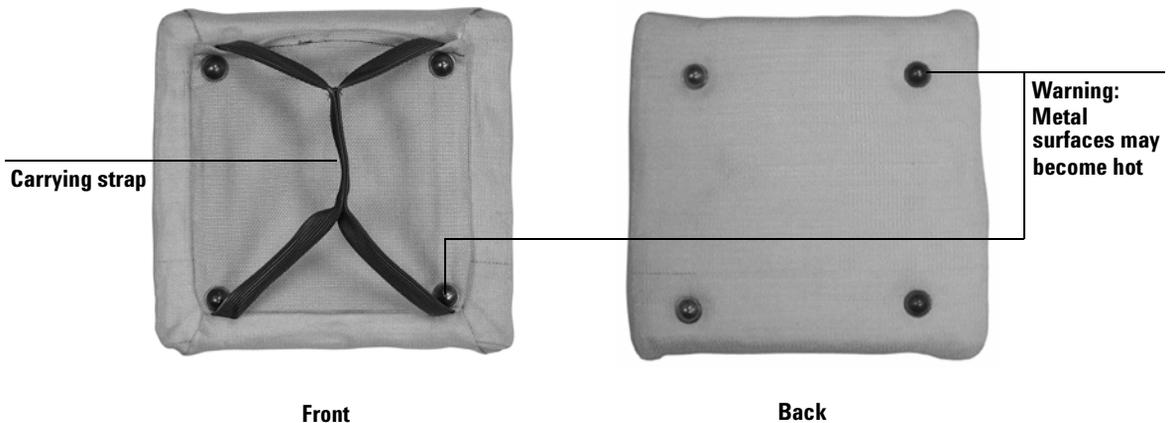


Figure 1 Oven insert kit

The typical temperature ramps rates attainable in your 6890 Gas Chromatograph (GC) with oven insert are listed in Table 1.

Table 1 Oven ramp rates

Temperature range (°C)	100/120 V Oven ramp rate (°C/minute)		200/220/230/240 V Oven ramp rate (°C/minute)	
	Without insert	With insert	Without insert	With insert
50 to 70	75	120	120	120
70 to 115	45	95	95	120
115 to 175	40	65	65	110
175 to 300	30	45	45	80
300 to 450	20	35	35	65

Compatibility

The Oven Insert is used with any inlet, column, and detector mounted in the back position. It is not compatible with the mass-selective detector, certain valve attachments, and other accessories which obstruct access to the back of the oven or which require the use of either the front inlet or the front part of the oven.

Prepare the GC oven

Before installing the oven insert for the first time, prepare your GC oven.

WARNING

Turn off the oven, inlet, and detector heated zones and allow them to cool.

- 1 If your GC is currently configured with a front inlet and/or detector, remove the items below. Refer to your *6890 Series Gas Chromatograph Operating Manual* for details.
 - Front column and column hanger
 - Front inlet and/or front detector (thermal conductivity detector (TCD), electron capture detector (ECD), or nitrogen-phosphorous detector (NPD)) bottom insulation cup. (It is not necessary to remove the front inlet, front detector, or detector make-up gas adapter.)
 - Any valve bracket
 - Any other hardware installed in the front half of the oven which interferes with the insert
- 2 Install the back column. Refer to your *6890 Series Gas Chromatograph Operating Manual* for details.

The prepared oven should appear similar to the oven shown in Figure 2.

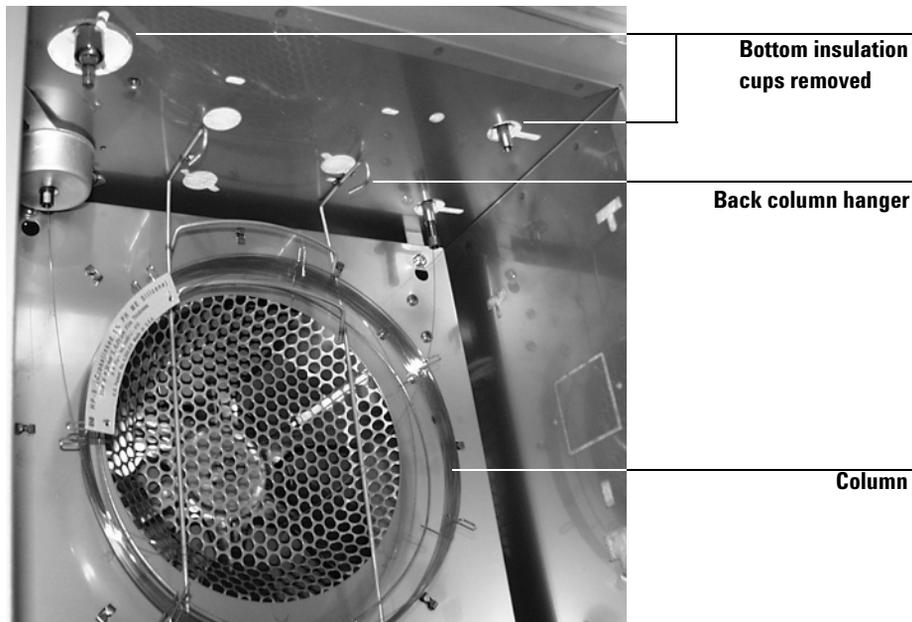


Figure 2 Oven prepared for insert

Install the oven insert

- 1 Turn off your GC oven and allow it to cool.

CAUTION

The cutouts in the interior oven walls may have sharp edges that can damage the oven insert fabric.

- 2 Orient the oven insert as shown in Figure 3 below. Tilt the upper edge away from you and insert it between the column fittings for the front inlet/detector and the back column hanger.

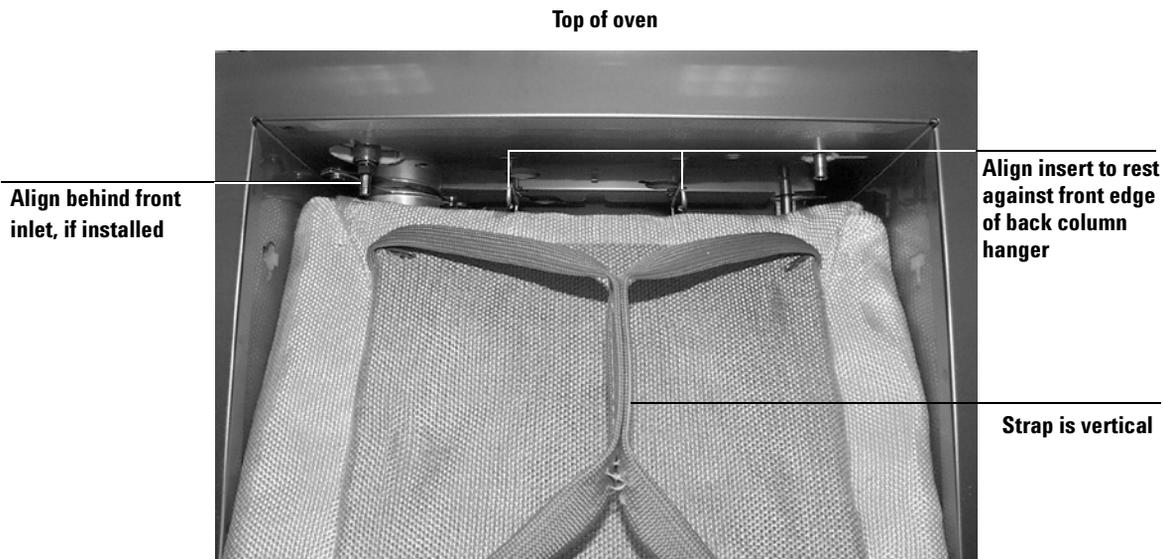


Figure 3 Installing the insert in front of the back column hanger

- 3 Push the bottom of the insert into place as shown in Figure 4. Keep the insert upright as shown.
- 4 If a TCD, ECD, or NPD is installed in the front detector position, cap off the make-up adapter and establish a purge flow.

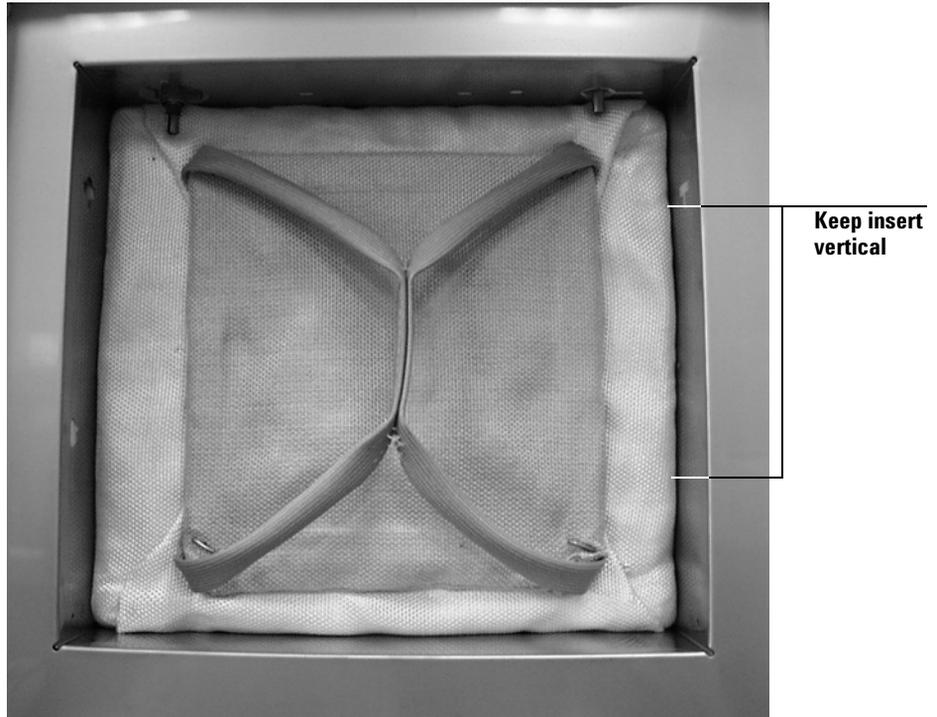


Figure 4 Oven insert installed in the oven

Removing the insert

- 1 To remove the insert, turn off the GC oven, inlet, and detector heated zones and allow them to cool.

WARNING

The metal fasteners on the oven insert may remain hot even after the oven has cooled. Always handle the insert only by its carrying strap, or wear heat-resistant gloves.

- 2 Use the carry strap to remove the oven insert, pulling out the bottom edge first.



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