

RESTEK

The Advantage

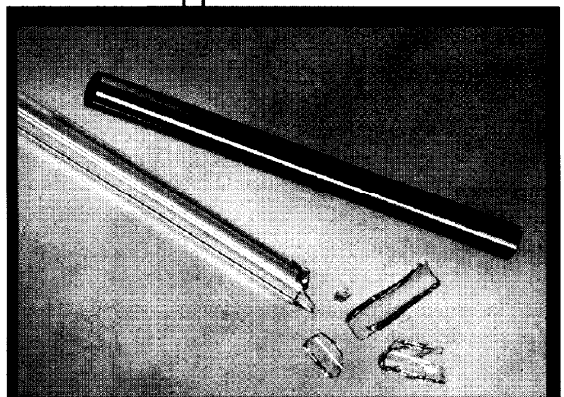
Innovators of
High Resolution
Chromatography

Innovative Silcosteel Metal Inlet Sleeves

Restek has developed a new low cost, high performance inlet sleeve for the HP 5890/6890 split/splitless injector. Advances made by our manufacturing group enable us to introduce a stainless steel inlet sleeve with inertness equivalent to deactivated glass. Utilizing our advanced Silcosteel process, metal sleeves are coated with a fused silica-like layer and then deactivated with a high temperature silanization process. These sleeves are ideal for split/splitless applications that require frequent changing of inlet sleeves to keep the injector contamination free. These sleeves are also excellent for portable GCs since they do not break during transportation or installation.

SILCOSLEEVE METAL INLET SLEEVES UTILIZE RESTEK'S SILCOSTEEL" SURFACE

Silcosteel® is a process that bonds a thin, uniform layer of flexible fused silica on the stainless steel. The surface is then deactivated and made inert by the same process used in our high quality fused silica and MXT®, capillary columns. Because the Silcosteel® layer is flexible, it will not crack or break off the surface of the stainless steel.



- Equivalent inertness to glass sleeves.
- Excellent response for pesticides, phenols and other active compounds.
- Silcosleeve inlet sleeves won't crack, chip, or break like glass sleeves.
- Inexpensive and cost effective.

1996 INTERNATIONAL SUPPLEMENT

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SILCOSLEEVE" INLET SLEEVES SHOW EXCELLENT INERTNESS FOR ACTIVE COMPOUNDS

inertness was demonstrated by injecting DDT and endrin at 50pg/ul in the splitless mode. Total DDT and endrin breakdown was calculated on the metal sleeve (Table 1) and compared to a deactivated glass inlet sleeve. Minimal breakdown was calculated for both sleeves which indicates that potential active sites are covered by the deactivation layer. This same standard was injected onto an untreated metal sleeve to show the breakdown of DDT to DDE and DDD due to active sites present on the surface of the sleeves (Table I). Figure 1 illustrates the response of trace phenols using a Silcosleeve" inlet sleeve. Phenols are also excellent indicators for inertness since they are chemically active compounds which adsorb on active surfaces.

STRENGTH AND DURABILITY

Since Silcosleeve" inlet sleeves are stainless steel they are not prone to breakage when installing or removing the sleeve, or during transportation to a testing site. The

fused silica is bonded to the stainless steel so it will not crack or break off the surface if mishandled or accidentally dropped.

SILCOSLEEVE" INLET SLEEVES ARE COST EFFECTIVE

Since different manufacturing techniques are used in making Silcosleeve" inlet sleeves, we are able to reduce the process time and pass the savings on to our customers. If you need highly inert and reasonably priced inlet sleeves for your HP 5890/689 GC, try our new Silcosleeve" metal inlet sleeves.

Silcosleeve™ Metal Inlet Sleeve for HP GCs

OD/ID & Length
6.35mm / 5.2mm & 78.5mm

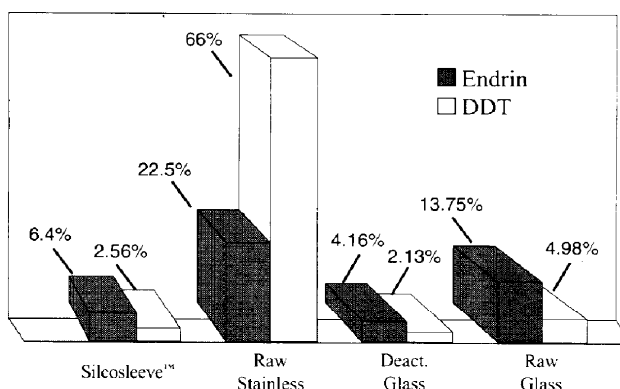
5-Pack
21700

25-Pack
21701

Add appropriate suffix to Cat. No. to order prepacked sleeves.

Packing	5-Pk. Suffix	25-Pk. Suffix
FS Wool	200.5	200.25
FS Beads	201.5	201.25
Glass Wool	202.5	202.25
CarboFrit™	209.5	209.25

Table 1 - Comparison of Endrin & DDT Breakdown



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Introducing SS inlet sleeves with inertness equivalent to glass.

PINNACLE" TO-11 3

HPLC column specifically optimized for the TO-11 method analysis.

New FAMEWAX" Columns 4

For fast, efficient FAME analysis.

Integra-Guard"6

Reduces frustrations of USP 467 analysis.

Column Installation Accessories 7

Leak Detective", Electronic Flow Calibrator.

Improved Pesticide Column Kits 8

Pre-assembled kits using an angled "Y" Press-fighta or "Y" Vu-Union@ connector

Silcosteel" Packed Columns 9

'Sample ready' for maximum productivity

PLOT Columns 10

Other advances in PLOT columns.

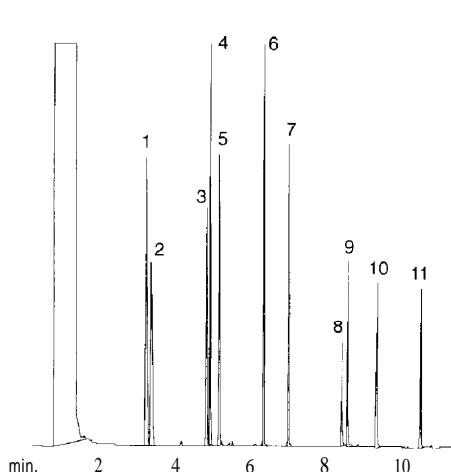
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Angled Press-Tight" Connectors, Purge & Trap Sparger, and Thermal Gas Purifier

&: Figure 1 - Phenols are excellent indicators to demonstrate the inertness of Silcosleeve" metal inlet sleeves.



1. phenol
2. 2-chlorophenol
3. 2-nitrophenol
4. 2,4-dimethylphenol
5. 2,4-dichlorophenol
6. 4-chloro-3-methylphenol
7. 2,4,6-trichlorophenol
8. 2,4-dinitrophenol
9. 4-nitrophenol
10. 2-methyl-4,6-dinitrophenol
11. pentachlorophenol

30m. 0.25mm ID. 0.25um XTI-5 (12223)

1.0ul splitless inj. 50ng of phenols.

Oven temp.: 40°C to 350°C @15C/min (hold 15 min.)

Inj. temp.: 250°C

Detector: FID

Note: If you have a special sleeve application please contact your local distributor