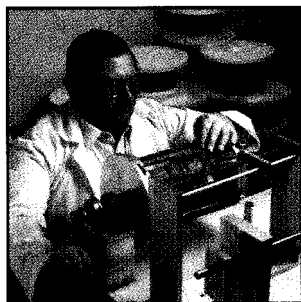


*What sets Restek apart from the competition?*

*Quality and Innovation you can count on!*

### ■ High Quality Fused Silica Tubing

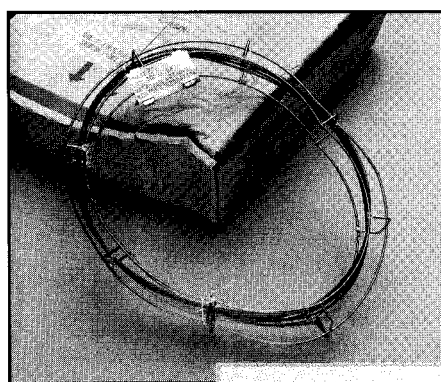


A column's quality is only as good as the materials from which it is manufactured. Restek uses only high quality fused silica tubing for our Rtx capillary columns. We constantly monitor the strength of our tubing by using a manual winding system which assures that every meter of every column is checked. Our tubing suppliers often say, "If our tubing is strong enough for Restek, it's strong enough for anybody."

We don't know if the column in the picture to the right was run over by a truck or crushed beneath a heavy crate during shipping, but we do know it survived! The cage is badly bent and the box is severely deformed. However, the column wasn't broken or damaged in any way. Why? Because we engineered our cage to be a survivor!

### ■ Innovative Cage Design

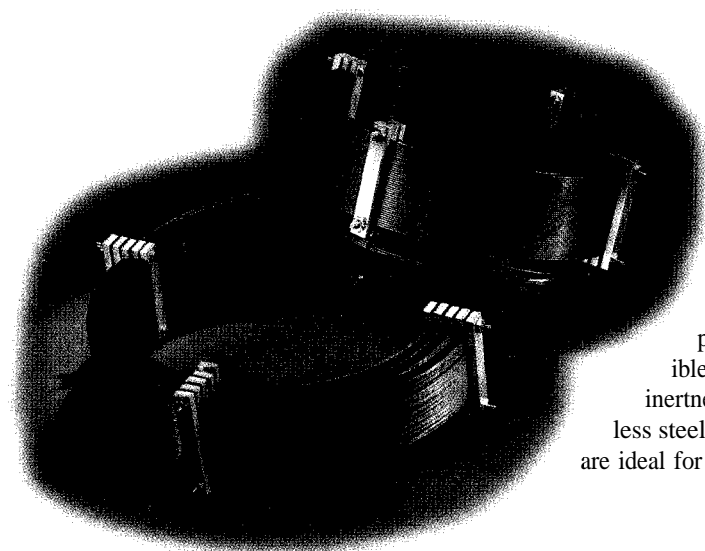
To keep your column safe we have designed a stainless steel cage to completely surround the column. The column is suspended in the cage using high temperature string that acts as a shock absorber. At no time does the fused silica tubing come into contact with the metal support of the cage. Spontaneous breakage can occur when fused silica tubing contacts sharp metal edges on the column cage. Our fused silica column cage is 7.65" (19.4 cm) in diameter and fits into virtually any GC oven.



*Just how strong is Restek's column cage?*

### ■ Unbreakable Metal Capillary Columns

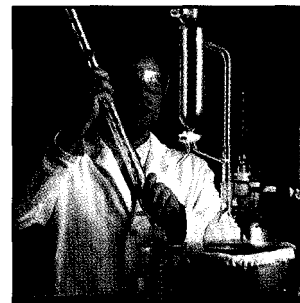
However, we realize that there are some harsh environments or special applications where fused silica tubing may not be the ideal material. For these circumstances Restek offers MXT capillary columns. MXT columns are made from unbreakable, thin wall, stainless steel that has been treated with our SilcosteeP process. This process deposits a submicron layer of flexible fused silica on the inside of the tubing giving it the same inertness as an Rtx column, but with the ruggedness of stainless steel. MXT columns are caged in small diameter coils that are ideal for portable or process GCs.



□ GC Columns

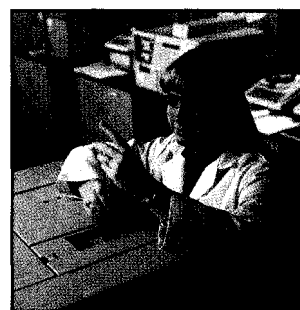
## ■ High Quality Polymers

In addition to the tubing material, high quality polymers used for deactivation and stationary phases are also necessary for making the world's best capillary columns. All of the polymers that go into Restek's Rx and MXT columns are synthesized to exacting standards in our own laboratory to ensure the highest quality and consistency. Any residual catalyst, which can cause degradation and increased bleed, is removed from the polymer. The polymer is then carefully fractionated to remove low molecular weight fragments. This provides a tight mono-modal distribution and further reduces column bleed. Every polymer is fully characterized to ensure long-term reproducibility. Characterization testing includes Refractive Index (RI), Fournier Transform Infrared Spectroscopy (FTIR), Kovats Retention Indices, % crosslinking, efficiency, and a five-day thermal bake-out to ensure column longevity. Each polymer lot is tracked in an extensive database for future reference and guarantees that the column you buy today will meet the same specifications of the column you bought last week or last year.



## ■ Thorough Testing of Every Column

The final quality assurance test on every Restek capillary column confirms that each column has the necessary inertness and efficiency. Each column is also evaluated for bleed at its maximum operating temperature to ensure that every column exhibits the lowest bleed possible.

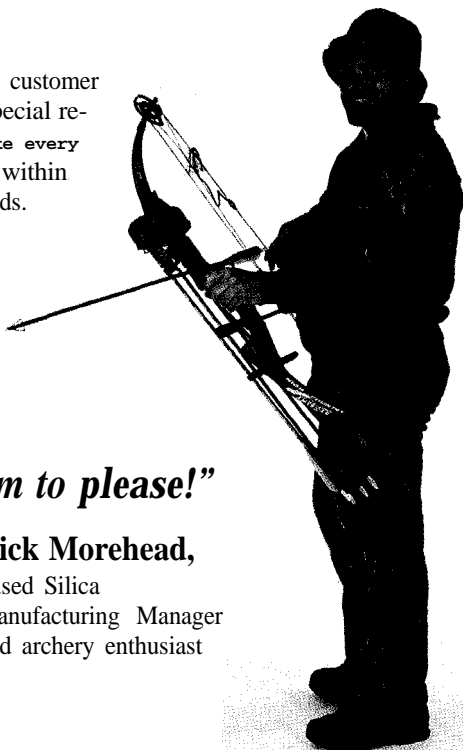


## ■ Functional, Environmentally Safe Packaging

The Restek difference is apparent before the column box is even opened. Instead of a logo or an advertisement on the top of the compact, recyclable corrugated cardboard column box, we've printed a useful Column Service Record. This allows the analyst to easily track column installation and GC maintenance for troubleshooting purposes. By having the column history on hand for instant review, quicker decisions can be made and guesswork eliminated.

## ■ What we can do for you

At Restek we are committed to 100% customer satisfaction in every way. Have a special request? Call us! It is our policy to take every request seriously, and do everything within our power to meet the customers' needs.



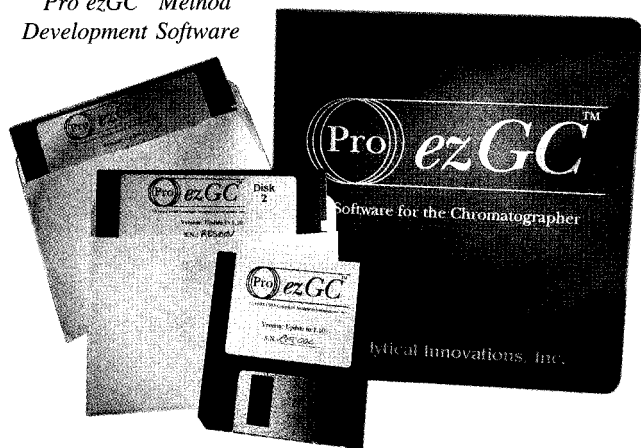
***"We aim to please!"***

**Rick Morehead,**  
Fused Silica  
Manufacturing Manager  
and archery enthusiast

How do I know  
**CLICK COLUMN**  
to use for my  
specific analysis?

Follow Restek's Column  
Selection suggestions or call  
your local distributor for help

Pro ezGC™ Method  
Development Software



### ■ Column Selection

#### ■ How do I know which column to use?

Some analysts do not have the freedom to choose a different type of column because their analytical methods dictate one specific column. Other analysts may keep using the same column because it works, even though it may not be the best choice for their samples. But, how was the current column chosen? Was the column choice determined by careful investigation of all column parameters and subsequent optimization for the specific application? Or, was the column chosen because it happened to be installed in the GC during method development?

Restek offers over 900 different capillary columns. If you do not know exactly which column to choose, selection can be a frustrating hit or miss decision. Trying to determine which column is ideal for your specific analysis can be difficult. This selection guide contains information on column materials and parameters such as stationary phase polarity, internal diameter, film thickness, and column length, that will help you choose the proper column for a particular sample. In addition, it might encourage you to carefully examine whether the column you already use is the best choice, or whether improvements in resolution, speed of analysis, and quantitation could be achieved by using a different type of capillary column.

#### ■ Pro ezGC Method Development Software

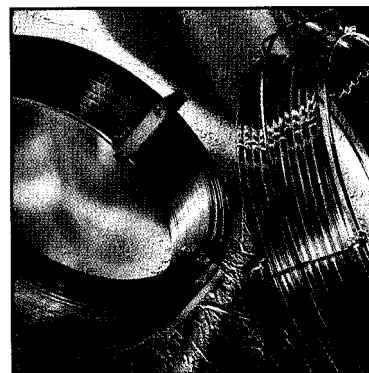
Take the guesswork out of selecting the best column and conditions for your GC analysis with *Pro ezGC* software for Windows. Increase the productivity of your existing gas chromatographs by improving separations and shortening analysis time with optimized temperature and carrier gas programs. *Pro ezGC* will save you time and money by greatly enhancing your productivity and increasing sample throughput. Take advantage of this powerful GC optimization tool today!

**Pro ezGC for Windows ver. 2:** cat.# 21487 ea.

**Pro ezGC (DOS) to Pro ezGC for Windows ver. 2 Upgrade:** cat.# 21486 ea.

#### ■ Column Materials

Both fused silica and stainless steel MXT columns offer a high degree of inertness and excellent flexibility. While the two column materials can service many of the same needs, the advent of MXT columns has expanded the utility of capillary columns. They are resistant to abrasion and scratches and show little risk of spontaneous breakage at any GC operating temperature. They can also be coiled into a smaller diameter to fit into portable field equipment. Under harsh operating conditions, stainless steel MXT columns are the best choice. When breakage is less of a concern (stationary bench top equipment) and it is advantageous to be able to identify non-volatile contamination inside the column, fused silica is the best choice. Fused silica is also much more amenable to the addition of a guard column using a press-tight connector.



#### ■ GC Columns