# Flexible Fused Silica Capillary Column

### For Gas Chromatography

## **INSTRUCTION MANUAL**

Please read these instructions carefully before using this product.

### 1. Instruction

- ULBON HR capillary columns are columns in which fused silica and liquid phases are chemically bonded. Use this column only for gas chromatography.
- ULBON WCOT capillary columns are columns in which liquid phases are coated on internal walls. Use this column only for gas chromatography.

### 2. Cautions

- This column has been aged. Before use cut approximately 3~4 cm from each end of the column using a file, etc. Please wear protective glasses when cutting the column in order to avoid potential eye injuries from flying glass fragments.
- After installing the column in an oven, set the column inlet pressure and pass carrier gas through the column for approximately 10 minutes. After substituting the air in the capillary column with carrier gas, increase the oven temperature to the desired value. When heating the column for the first time, increase the oven temperature at a rate of less than 10°C per minute. After this initial heating, the column can then be heated at any desired rate. Avoid exceeding the maximum operating temperature of the liquid phase.
- For WCOT capillary columns, increase the temperature of the column at a rate of less than 6°C per minute each time the column is used. Rapid temperature increases can lead to the deterioration of columns.
- Do not stop the carrier gas when the oven temperature is above 70°C. Irreversible damage to the column may occur even if the carrier gas is stopped for only a short period time.
- After finishing analyses, injectors and detectors require extended periods of time to cool. Please stop the carrier gas after confirming that the temperature of each device has decreased to less than 100°C. When the column is to be used again the following day, we recommend that the carrier gas continue to be flowed, but at a lower flow rate.
- When the column is not used for an extended period of time, attach a septum to each end of the column to prevent air from entering the column.

