Guard Column Holder Analytical – MANUAL
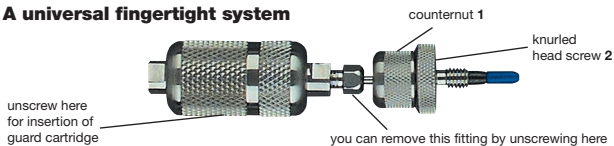
YMC EUROPE GMBH

YMC strongly recommends the use of guard columns to protect all chromatography columns, both analytical and preparative scale, to extend column lifetime and to ensure unchanging performance. A guard column of inferior quality will soon result in poor chromatographic performance with respect to peak symmetry and/or efficiency as shown below and so even high quality cartridges such as those supplied by YMC will need to be replaced to preserve the performance of the column.

YMC offers two different guard column holder concepts:

1) A universal fingertight system

counternut **1**

knurled head screw **2**

unscrew here for insertion of guard cartridge

you can remove this fitting by unscrewing here

(XPGCH-Q1 for 10 mm guard and XPGCH-Q2 for 20 mm guard and all internal diameters for 1.0 to 4.6 mm id columns)

This system guarantees a low dead volume connection between the guard cartridge and main column irrespective of the type of column fitting used. To connect the guard cartridge holder to the column to give leak-proof connection up to 6000 psi, follow the description below.

1.) Unscrew the counternut **1**
2.) Insert the capillary into the column port and screw the knurled head screw **2** fingertight
3.) Finally screw the counternut **1** fingertight.
4.) The guard column cartridges are inserted in the holder cavities without any tools – simple hand tightening of the two parts of the holder will give leak-proof connection up to 6000 psi. A small slit between the holder parts will remain and demonstrates a perfect fit.

2) YMC specific integral guard cartridge holder

unscrew here for insertion of guard cartridge

(XPGCS-Q1 for 10 mm and XPGCS-Q2 for 20 mm length cartridges with 1.0; 2.1; 3.0 or 4.0 mm inner diameters)

This holder is screwed directly on the YMC cartridge column system in place of the removable end fitting. The guard column cartridges are inserted in the holder cavities without any tools – simple hand tightening of the two parts of the holder will give leak-proof connection up to 6000 psi. A small slit between the holder parts will remain and demonstrates a perfect fit.

These integral guard cartridge holders will not attach to 4.6 mm i.d. **-WT** style columns and any attempt to do so will invalidate the column warranty.

Which guard cartridge holder should I use?

My column has endfittings which look like this

WT-style hardware is only compatible to the external holder. Use XPGCH-Q1 for 10 mm guard cartridge holder and XPGCH-Q2 for 20 mm guard cartridge holder.

You may use either the universal fingertight system XPGCH-Q1 for 10 mm guard and XPGCH-Q2 for 20 mm guard or the integral guard holder XPGCS-Q1 for 10 mm and XPGCS-Q2 for 20 mm length cartridges.