

## Which HPLC column internal diameter should I use for LCMS – FAQ

**With most LC-MS (as well as some other detection methods), smaller column diameter is generally necessary.** LCMS systems are not equipped for the higher volumetric flow rates of 4.6mm ID columns. Efficient evaporation of the **eluent** solvent is achieved more readily on smaller diameter columns, which is required for MS detection. For this reason, we recommend a 2.1mm or smaller column internal diameter ID for these kinds of methods.

*NOTE: For most standard HPLC applications such as UV detection methods, a 4.6mm, 4.0 or 3.0mm I.D. is suitable. Smaller diameters will present unnecessary problems for standard UV instruments. For instance, the system tubing and especially the flow cell may cause **band broadening** with a 2.1mm column due to extra-column dispersion effects of the mismatch between the system and the column.*



Printed from the Chrom Resource Center

**MicroSolv Technology Corporation**

9158 Industrial Blvd. NE, Leland, NC 28451

tel. (732) 380-8900, fax (910) 769-9435

Email: [customers@mtc-usa.com](mailto:customers@mtc-usa.com)

Website: [www.mtc-usa.com](http://www.mtc-usa.com)

Date: 05-08-2024