

## **GC-MS Columns**

| S. No. | Column Name          | Length, Diameter & Thickness | Temperature Range | Stationary Phase  | Applications   |
|--------|----------------------|------------------------------|-------------------|---|--|
| 1.     | HP-PLOT-Q            | 30m, 0.53mm, 40µm            | -60°C to 270°C    | Polystyrene - divinylbenzene                            | Excellent for C1 to C3 isomers and alkanes to C12, CO2, methane, air/CO, oxygenated compounds, sulfur compounds, and solvents        |
| 2.     | HP-PLOT 5A Molesieve | 30m, 0.53mm, 50.0µm          | -60°C to 300°C    | Molecular sieve material (fused silica) of pore size 5Å | H2, O2, N2, CO, and CH4 Separation   |
| 3.     | DB-WAX               | 30m, 0.25mm, 0.25µm          | 20°C to 250°C     | Polyethylene glycol (PEG)                               | Analyzing compounds with polar functional groups. They are well suited for essential oils, food, flavor, and fragrance applications, |
| 4.     | HP-5 MS              | 30m, 0.25mm, 0.25µm          | -60°C to 325°C    | (5% Phenyl) MethylPolysiloxane                          | Higher Hydrocarbon   |
| 5.     | DB-624               | 30m, 0.25mm, 1.40µm          | -20°C to 260°C    | 6% cyanopropyl/phenyl, 94%polydimethylsiloxane          | Volatile organic compounds   |
| 6.     | GS - Alumina         | 50m, 0.53mm                  | -60°C to 200°C    | Alumina   | C1 to C8 saturated Hydrocarbon & C1 to C4 unsaturated hydrocarbon  |
| 7.     | HP - 5MS UI          | 30m, 0.25mm, 0.25µm          | -60°C to 325°C    | (5% Phenyl) MethylPolysiloxane Ultra inert layer        | Semivolatiles, Halogenated compounds, Amines   |
| 8.     | GS - GASPRO          | 60m, 0.32mm                  | -80°C to 260°C    | Fused Silica  | Light Hydrocarbons and Sulphur gases   |

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| 9.  | HayeSep N<br>(packed<br>Column)                                      | 2.5m, 2mm (ID), 1/8 Inches<br>(OD)  | Typically used at<br>temperatures up<br>to around<br>165°C.                        | Ultimetel [Mesh 80/100]  | environmental analysis,<br>petrochemical studies, and breath<br>analysis, effectively separating<br>permanent gases, light<br>hydrocarbons, and polar<br>compounds |
| 10. | Molsieve 13X<br>(packed<br>Column)<br><br>zeolite-based<br>adsorbent | 6 ft (1.83 M), 1/8 in. OD, 2<br>mm ID<br><br>mesh size 60/80, pre-<br>conditioned | Suitable for<br>high-<br>temperature<br>applications,<br>often exceeding<br>400°C. | UltiMetal [Agilent's proprietary<br>deactivated metal technology. It<br>enhances the performance of<br>metal columns and tubing by<br>providing an inert, corrosion-<br>resistant surface. | Can separate CO <sub>2</sub> , H <sub>2</sub> S, water, and<br>other small molecules that might<br>pass through a 5Å sieve.  |