

Fike

Analytical Technologies, L.L.C.

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WHAT ARE THE DIFFERENCES BETWEEN CANISTERS AND THERMAL DESORPTION TUBES?

Thermal Desorption Tubes	Canisters
Sample size analyzed = up to 40 L	Sample size analyzed = 0.1-1.0 L
Sample pump required; sampling rate adjustable on site	Sampling tree and critical orifice required; cannot be adjusted
UPS shipping for 6 thermal desorption tubes round trip Chicago – Los Angeles: Ground \$15 2 nd Day Air \$75 Next Day Air \$133	UPS shipping for six 6L canisters round trip Chicago – Los Angeles: Ground \$150 2 nd Day Air \$540 Next Day Air \$680
No cost to clean/certify thermal desorption tubes	Have to pay for cleaning and certification
50 thermal desorption tubes fit neatly into a brief case	You need a really big brief case
Analysis cost is lower	Analysis cost is more expensive
Keep several thermal desorption tubes for two years and you don't have to pay rent	Keep several canisters/regulators for a year and the rent will drive you out of business
Two-Year shelf life	30 day shelf life
Convenient (can keep several tubes in your briefcase so they're always available, easy to haul around, ship in a 9"x4"x4" box)	Hassle (have to order for each job, large shipping containers, difficult to haul around just in case you need one)
Thermal desorption tubes are about 400 times more sensitive	The struggle to gain sensitivity makes analyses prone to contamination problems
Can do compounds like nicotine, cresols, naphthalene, 2-methylnaphthalene, cedrol, menthol, 4-PCH, fragrances, acetophenone, camphor, methylsalicylate, geraniol, tri-chlorobenzene, citronellyl esters, C11-C15	Limited to $C \leq 10$ compounds
All of the 400 thermal desorption compounds can be determined	Only 213 out of the 400 thermal desorption compounds can be determined
It's easy to make last minute changes in sampling parameters	You need to order a different critical orifice to make last minute changes in sampling parameters
Sulfur, nitrogen, and polar compounds can be determined easily	Difficulty determining sulfur, nitrogen, and polar compounds
Grab sample can be taken in 0.5-5 min	Grab sample can be taken in 0.2 min
\$15 for sample taken and not analyzed	\$75 for sample taken and not analyzed