

Preconcentrator Feature Comparison

FEATURES	7200 Preconcentrator	7200CTS Cryogen-Free Preconcentrator	7200A Accelerated Preconcentrator
Design & Performance Specs			
Compatible Boiling Point Range	-105°C to >250°C	-50°C to >300°C	-105°C to >250°C
Compatibility Range By Carbon Number	C2 - C14	C3 to C20	C2 to C14
Primary Trapping System	Packed Traps (Adsorbent, Glass Bead) Open Silonite Column	Multi-Capillary Column Trapping	Packed Traps (Adsorbent, Glass Bead) Open Silonite Column
Focusing Trap	Cryofocusing on Unpacked Silonite Tube.	Multi-Capillary Column Trap	Cryofocusing on Unpacked Silonite Tube.
Trap Operating Temp	-190 to 230°C	35 to +220°C	-190 to +230°C
Precision	±3% when sampling over 50 mls of sample	±3% when sampling over 50 mls of sample	±3% when sampling over 50 mls of sample
Detection Limits for EPA Method TO15 Compounds * MS Dependant	<0.05 PPBv *	<0.05 PPBv *	<0.05 PPBv *
Coolant / Cooling System	Liquid Nitrogen, 20-60psig	Fan Cooled	Liquid Nitrogen, 20-60psig
Sample Introduction Volume	1cc to 1000cc	1cc to 250cc	1cc to 1000cc
Sample Pressure	10 - 50 psia	10 - 50 psia	10 - 50 psia
Complete Cycle Time	45 - 60 min	30 min	22 - 30 min
Dynamic Range	PPT to PPM	Sub-PPB to PPM	PPT to PPM
Polar Compounds	Yes	Yes (No Formaldehyde)	Yes
Sulfur Compounds	Sub PPB using ECTD	Yes (No H2S)	Sub PPB using ECTD
Water Removal Efficiency	90 to 95%	99%	95 to 97%
Features & Capabilities			
Accelerated Analysis	✘	✔	✔
Microscale Purge & Trap	✔	✘	✔
Extended Cold Trap Dehydration	✔	✘	✔
Automated Standards Addition	✔	✔	✔
High CO ₂ Samples	✔	✔	✔
Accu-Sample Technology	✔	✔	✔
Digital Valve Isolation	✔	✔	✔
Loop Injection Valve	Yes, Optional (0.5-2cc) 1cc Typical	Yes - Included (0.5-2cc) 1cc Typical	Yes - Included (0.5-2cc) 1cc Typical
Pressure / Vacuum Leak Test Prior to Opening	✔	✔	✔
Built-in Sample Ports	4	4	4
Mass Flow Controllers	No	No	No
Compatibility			
Primary Sampling Media	Canisters, Mini-Cans, Bottle-Vacs, Tedlar Bags (w/7032)	Canisters, Mini-Cans, Bottle-Vacs, Tedlar Bags	Canisters, Mini-Cans, Bottle-Vacs, Tedlar Bags
Helium Diffusion Samplers (HDS)	Yes (w/7650)	Yes (w/7650)	Yes (w/7650)
Thermal Desorption Tubes	Yes, (w/5400)	Yes, (w/5400)	Yes, (w/5400)
Autosampler Support	All 7650, 7016D, 7032A/D	All 7650, 7016D, 7032D	All 7650, 7016D, 7032D
Autosampler Connections	Up to 3	Up to 3	Up to 3
Methods	TO-14A, TO-15, LL-TO-15, HJ759 TO-17, ASTM 5466, PV2120, OSHA 1021	TO-14A, TO-15, LL-TO-15, HJ759 TO-17, ASTM 5466, PV2120, OSHA 1021	TO-14A, TO-15, LL-TO-15, HJ759 TO-17, ASTM 5466, PV2120, OSHA 1021
Operating Platform	SmartLab 2	SmartLab 2	SmartLab 2
Operating System	Windows 7, 10	Windows 7, 10	Windows 7, 10
Operating Specifications			
Power	1200W	1200W	1200W
Voltages	120VAC / 60Hz, 230-240VAC / 50Hz	120VAC / 60Hz, 230-240VAC / 50Hz	120VAC / 60Hz, 230-240VAC / 50Hz
Operating Environment	10 - 30°C	10 - 28°C	10 - 30°C
Outputs	Isolated Contact Closures 2 TTL level optoisolated open-collector outputs as start signals for GC Start	Isolated Contact Closures 2 TTL level optoisolated open-collector outputs as start signals for GC Start	Isolated Contact Closures 2 TTL level optoisolated open-collector outputs as start signals for GC Start
Inputs	Accepts switch closures or open-collector inputs for GC	Accepts switch closures or open-collector inputs for GC	Accepts switch closures or open-collector inputs for GC
Gases	UHP Helium or Nitrogen (10psig) (w/7650) Air/N ₂ (30psig)	UHP Helium or Nitrogen (10psig) (w/7650) Air/N ₂ (30psig)	UHP Helium or Nitrogen (10psig) (w/7650) Air/N ₂ (30psig)
Weighted Comparison & Special Features			
Compound Compatibility Range	Best	Good	Best
Cost of Operation	Good	Best Elimination of Cryogen Saves Money Less GCMS Maintenance	Better Uses 30% Less Liquid Nitrogen than 7200
System Hygiene	Good Accu-Sample Technology / Valve Isolation	Best Unparalleled Hygiene & Uptime - Virtually no trap carry-over	Better Accu-Sample Technology / Valve Isolation Extended Tenax Trap Backflush Bakeout
Water Management / Humid Samples	Good ECTD, MPT, Dry Purge	Best Near complete elimination of water	Better ECTD, MPT, Dry Purge + SmartSplit Water Management (3X Reduction of Water to GCMS)
Cycle Time	Good	Better	Best Under 25 minutes injection to injection for soil gas or low level ambient or indoor air.
Physical Properties			
Weight	35-42 lbs (120VAC), 48-54 lbs (240V)	33-40 lbs (120VAC), 46-52 lbs (240V)	35-42 lbs (120VAC), 48-54 lbs (240V)
Dimensions	9.5" Wide, 18" Tall, 22.5" Deep	9.5" Wide, 18" Tall, 22.5" Deep	9.5" Wide, 18" Tall, 22.5" Deep