









# **INSTRUMENTATION RENTAL & CALIBRATION SERVICES**

### Rental

Our instrumentation services include world-wide rental, calibration, and maintenance for radiological and industrial hygiene monitoring instruments to all market sectors. With more than 2,000 instruments in inventory, availability and fast delivery are guaranteed. We offer long-term and short-term lease options at affordable rates as well as professional consultation for custom instrumentation application and development.

## **Offers Include:**

- A large inventory of Repair/Maintenance parts to support expedited requests;
- 32+ year history in servicing government clients worldwide with radiological and industrial hygiene and advanced survey instrumentation and technologies;
- State-of-the-art instrumentation center that has proven to provide a low risk, low cost, rapid, and highest quality option to all clients;
- GPS Walkover survey instrumentation
- Radiological Instrumentation for On-Site Laboratories

# Calibration, Repair and Speciality Instrumentation

The Perma-Fix instrumentation facility, located in Knoxville, Tennessee, calibrates and repairs Radiation Detection and Industrial Hygiene instruments of many makes and models from a variety of manufacturers. Perma-Fix proudly staffs experienced full-service instrumentation technicians. Our team provides the highest quality calibrations and repair services for most major manufacturers' models. All calibrations are performed to the requirements of ANSI N323AB-2013 and ISO 17025-2017 unless otherwise requested. Perma-Fix operates the Instrumentation Services under Tennessee Department of Environment and Conservation, Division of Radiological Health, Radioactive Material License numbers R-47161 and R-47209 (issued to Safety and Ecology Corporation/SEC, a wholly owned subsidiary of Perma-Fix).

\*Instrumentation rates are based on a quantity of one (1) each. Contact us for volume or long term discounts



**SEC Instrumentation Lab** 

(800) 905-0501 or (865) 392-1387 10512 Lexington Drive, Suite 200 Knoxville, TN 37932

#### Sabrina Hall

Industrial Hygiene Instrumentation shall@perma-fix.com

#### Carl Hall

Radiological Instrumentation chall@perma-fix.com

#### **Javid Kelley**

VP Nuclear Services, Senior Technical Officer javid.kelley@perma-fix.com





# **Industrial Hygiene Instrumentation**

2024 Rates	Daily	Weekly	Monthly
Gas Monitors			
MultiRAE PGM-6228 (PID, CO, H2S, LEL, O2)	\$124	\$310	\$775
PID (Photoionization De	etector)		
MiniRAE 3000 PGM-7320 (10.6 eV Lamp)	\$120	\$300	\$750
Heat Stress Monitors (\	WBGT)		
QUESTemp 32 (QT-32)	\$56	\$140	\$350
QUESTemp 34 (QT-34)	\$56	\$140	\$350
QUESTemp 44 (QT-44)	\$56	\$140	\$350
Metrosonics hs-32	\$56	\$140	\$350
Aerosol Monitors	;		
TSI 8530 DustTrak (0.001 - 400 mg/m³)	\$128	\$320	\$800
Thermo Scientific DataRAM pDR-1000AN (0.001 - 400 mg/m³)	\$92	\$230	\$575
HAZ-DUST IV Aerosol Monitor (.01 - 200 mg/m³)	\$96	\$240	\$600
SKC Split2 w/AirChek52 Pump	\$96	\$240	\$600
Noise Monitors			
Quest NoisePro DLX Noise Dosimeter w/Calibrator	\$56	\$140	\$350
Quest 2200 Sound Level Meter w/Calibrator	\$48	\$120	\$300
Quest SoundPro Sound Level Meter w/Calibrator	\$92	\$230	\$575
Sper Scientific 840015 Sound Level Meter w/Calibrator (Type 1)	\$15	\$36	\$90





# **Industrial Hygiene Instrumentation**

2024 Rates	Daily	Weekly	Monthly
Air Sampling Pum	OS		
Gilian GilAir5 (5 mL-5 LPM)	\$29	\$72	\$180
SKC Leland Legacy (5-15 LPM)	\$32	\$80	\$200
Gast High Volume Pump (3 – 30 LPM)	\$20	\$50	\$125
Thomas High Volume Pump (2 – 30 LPM)	\$20	\$50	\$125
Pump Calibrators	5	0	`
Bios DC Lite (DCL ML = 5 mL - 5 LPM / 50 mL - 2 LPM)	\$32	\$80	\$200
Bios DC Lite (DCL M = 10 mL - 12 LPM / 100 mL - 7 LPM)	\$32	\$80	\$200
Bios DC Lite (DCL H = 50 mL - 30 LPM / 500 mL - 30 LPM)	\$32	\$80	\$200
Bios Defender 510 (M or H)	\$32	\$80	\$200
Sampling Accessories			
SKC Aluminum Cyclone (Respirable Dust Cyclones)	\$4	\$10	\$25
SKC Plastic Cyclone	\$3	\$8	\$20
Gas Detection Pum	ps		
Drager Accuro Bellows Pump	\$16	\$40	\$100
Gastec GV-100 Tube Pump	\$16	\$40	\$100
Specialty Equipme	nt		
Disto Pro 4 Distance Meter (650' distance range)	\$24	\$60	\$150
Dwyer VT-200 Anemometer (0.7 to 100 mph, 0.6 to 88 knots)	\$16	\$40	\$100
EXTECH 42505 IR Thermometer (-58 to 716 F)	\$4	\$10	\$25
Fisher Scientific 01-241 Anemometer (0.4 mps - 53.3 knots)	\$10	\$22	\$55
Heron Oil / Water Interface Meter	\$52	\$130	\$325
Heron Water Level Meter	\$24	\$60	\$150
Kestrel 1000 Anemometer (0.6 - 40 m/s)	\$3	\$8	\$20
Kestrel 3000 Anemometer (0.4 - 40 m/s)	\$4	\$10	\$25
Protimeter Surveymaster Moisture Meter	\$20	\$50	\$125
Spectrum Thunderbolt Storm Activity Detection (0-70 miles)	\$16	\$40	\$100
Amprobe LM-200LED Light Meter (Lux/FC)	\$12	\$30	\$75
Sper Scientific Light Meter 840020 ( Lux/FC)	\$12	\$30	\$75
Sper Scientific Light Meter 840021 (FC)	\$10	\$26	\$65





# Experience You Can Trust RAD Instrumentation

2024 Rates	Weekly	Monthly
Survey Meters		
Ludlum Model 3 Ratemeter (Analog Only)	\$26	\$65
Ludlum Model 3IS Ratemater (Intrinsically Safe)	\$80	\$200
Ludlum Model 3 or 12 Scaler/Ratemeter	\$30	\$75
Ludlum Model 2221 Scaler/Ratemeter	\$76	\$190
Ludlum Model 2224 Alpha Beta Scaler/Ratemeter	\$50	\$125
Ludlum Model 2224-1 Alpha Beta Scaler/Ratemeter	\$50	\$125
Ludlum Model 2241 Digital Scaler/Ratemeter	\$40	\$100
Ludlum Model 2241-2 Digital Scaler/Ratemeter	\$40	\$100
Ludlum Model 2350-1 Digital Data Logger	\$76	\$190
Ludlum Model 2360 Alpha Beta Data Logger Scaler/Ratemeter	\$56	\$140
Ludlum Model 3002 Alpha-Beta Digital Survey Meter	\$100	\$250
Ludlum Model 177 Alarm Ratemeter	\$30	\$75
Ludlum Model 177-61 Alarm Ratemeter	\$30	\$75
Ludlum Model 239-1F Floor Monitor w/Model 2221 Scaler/Ratemeter	\$210	\$525
Ludlum Model 239-1F Floor Monitor w/Model 2350-1 or 2360 Data Logger	\$210	\$525
Ludlum Model 2750 Gas Flow Control (Use with Model 43-68's)	\$20	\$50
P-10 Dual Stage Regulator for use with 239-1F Floor Monitor	\$20	\$50
Dose Rate Meters		
Ludlum Model 14C Survey Meter w/ 44-38 Energy Compensated G-M	\$50	\$125
Detector		
Ludlum Model 12-4 w/42-31H Neutron Counter	\$120	\$300
Ludlum Model 15 w/42-9 Neutron Counter and 44-7 Gamma Detector	\$110	\$275
Ludlum Model 2241-4 w/42-31H Neutron Counter	\$120	\$300
Ludlum Model 9 Ion Chamber	\$40	\$100
Ludlum Model 19 Micro R Meter	\$40	\$100
Ludlum Model 195 High Range Meter w/43-132 Alpha Ion Chamber	\$60	\$150
Ludlum Model 375 Area Monitor w/133-4 or 133-6 Gamma Detector	\$66	\$165
Automess 6112B Extendable Dose Rate Meter (Teletector)	\$210	\$525
Bicron Micro Rem Tissue equivalent uR Meter	\$80	\$200
Bicron Micro Rem Tissue equivalent uR Meter Low Energy	\$90	\$225
Thermo RadEye RPD-ER Personal Radiation Detector with BLE Adapter	\$130	\$325
Thermo RadEye SPRD Personal Radiation Dector	\$204	\$510
Eberline RO-7 Digital Ion Chamber (Choice of Low, Med or High Range Det.)	\$210	\$525
Eberline RO-2 Ion Chamber	\$48	\$120
Eberline RO-20 Ion Chamber	\$58	\$145
MGP Instruments AMP-100 with High Range GM Dectector	\$116	\$290





# **RAD Instrumentation**

2024 Rates	Weekly	Monthly
Alpha Detectors		
Ludlum Model 43-5 50 cm <sup>2</sup> Open Area Alpha Scintillator	\$24	\$60
Ludlum Model 43-65 50 cm <sup>2</sup> Open Area Alpha Scintillator	\$24	\$60
Ludlum Model 43-90 100 cm <sup>2</sup> Open Area Alpha Scintillator	\$30	\$75
Alpha/Beta Detectors		
Ludlum Model 43-10-1 Alpha Beta Smear Counter	\$40	\$100
Ludlum Model 43-37-1 609 cm <sup>2</sup> Open Area Gas Proportional Detector	\$56	\$140
Ludlum Model 43-37 430 cm <sup>2</sup> Open Area Gas Proportional Detector	\$50	\$125
Ludlum Model 43-68 100 cm <sup>2</sup> Open Area Gas Proportional Detector	\$20	\$50
Ludlum Model 43-2-2 Dual Phosphor Scintillator	\$40	\$100
Ludlum Model 43-93 100 cm <sup>2</sup> Active Area Alpha Beta Scintillator	\$40	\$100
Gamma Detectors		
Ludlum Model 44-2 1"x1" Nal Gamma Scintillator	\$20	\$50
Ludlum Model 44-3 1"x1mm Nal Gamma Scintillator	\$20	\$50
Ludlum Model 44-10 2"x2" Nal Gamma Scintillator	\$40	\$100
Ludlum Model 44-17 2"x2mm Low Energy Nal Gamma Scintillator	\$40	\$100
Ludlum Model 44-20 (12/12SS/3B) 3"x3" Nal Integral Gamma Scintillator	\$180	\$450
Ludlum Model 44-62 1/2"x1" Nal Gamma Scintillator	\$30	\$75
FIDLER (20DT063QA2/5B) probes 5" Diameter Nal with Aluminum Window	\$240	\$600
Pb Shields: 1/4" thick x 2.5" or 6" high Pb shield for Model 44-10's	\$20	\$50
Alpha/Beta/Gamma Detectors		
Ludlum Model 44-7 Thin End Window G-M Detector	\$14	\$35
Ludlum Model 44-9 Pancake G-M Detector	\$12	\$30
Ludlum Model 44-9-18 Extended Reach Pancake G-M Detector	\$14	\$35
Ludlum Model 44-40 Shielded Pancake G-M Detector	\$14	\$35
Ludlum Model 44-94 Four Pancake G-M Detector	\$14	\$35
Eberline HP-210A Aluminum Shielded Pancake G-M Detector	\$12	\$30
Eberline HP-210L Lead Shielded Pancake G-M Detector	\$16	\$40
Eberline HP-210T Tungsten Shielded Pancake G-M Detector	\$20	\$50





# **RAD Instrumentation**

2024 Rates	Weekly	Monthly
Beta/Gamma Detectors		
Ludlum Model 44-6 Thin Wall G-M Detector	\$14	\$35
Ludlum Model 44-38 Energy Compensated G-M Detector	\$14	\$35
Ludlum Model 133-6 Gamma Detector	\$16	\$40
Beta Detectors		
Ludlum 44-110 100 cm Open Area Windowless Tritium Detector	\$56	\$140
Ludlum Model 44-116 100 cm <sup>2</sup> Open Area Beta Scintillator	\$30	\$75
Sample Counters		
Ludlum Model 2000 Scaler w/Model 43-10 Sample Counter	\$60	\$150
Ludlum Model 2929 Scaler w/Model 43-10-1 Sample Counter	\$96	\$240
Ludlum Model 3030E Scaler w/ Model 43-10-1 Sample Counter	\$120	\$300
Ludlum Model 3030 Scaler Sample Counter	\$120	\$300
Specialty Equipment		
Canberra Field ISOCs gamma spec unit with LabSOCS software	\$2,680	\$6,700
Canberra Gamma Spec	\$1,600	\$4,000
Canberra iCAM w/F&J LV-1 Pump	\$700	\$1,750
Canberra iSolo Gas-less Manual Alpha / Beta Counting System	\$600	\$1,500
Dosimeters DMC 2000	\$16	\$40
Dosimeters DMC 3000	\$20	\$50
Dosimeters SRD's (0-200mR, 0-500mR, 0-2R)	\$10	\$25
SRD Charger	\$10	\$25
Exploranium GR-135	\$400	\$1,000
Eagle iScan System (With 3x3 Nal Probe)	\$580	\$1,450
Eagle iScan System (With 3x5x16 Crystal Probe)	\$720	\$1,800
Femto-Tech PTM-1812	\$240	\$600
Ludlum Model 180-15 Source Holder	\$8	\$20
Ludlum Model 180-7 Source Holder	\$8	\$20
Ludlum Model 500 Series Pulser	\$120	\$300
Ludlum Model 2221 with 44-110 Tritium Detector	\$80	\$200
Ludlum Model 4612 12 Channel Analyzer	\$200	\$500
Ludlum Model 8045EKR2-1 Keypad for 2350-1's	\$20	\$50
Ludlum Model TT145EKR2-1 Keypad for 2360's	\$20	\$50
ORTEC digiBASE	\$400	\$1000





# **RAD Instrumentation**

2024 Rates	Weekly	Monthly
Specialty Equipment		
Perma-Sort <sup>SM</sup> Soil Sorter (CA License=additional \$1,000/month)	\$2,800	\$7,000
Perkin Elmer 2910TR Tri-Carb Liquid Scintillation Counter	\$1,600	\$4,000
Protean ASC-DP Low Background Smear Counter	\$1,600	\$4,000
Protean ACS-950-G-02 Gasless Low Background Smear Counter	\$1,600	\$4,000
Tennelec LB 5100 Low Background Smear Counter	\$1,400	\$3,500
Thermo NITON XL3t Hand-held X-Ray Fluorescence (XRF) Analyzer	\$1,100	\$2,750
Air Samplers		
F&J HV-1 High Volume (3-12 CFM) Pump	\$40	\$100
F&J HV-1 V.2 High Volume (3-12 CFM) Pump	\$50	\$125
F&J LV-1 Low Volume (0-100 LPM) Pump	\$40	\$100
F&J LV-14M Low Volume (0-100 LPM) Goose Neck Pump	\$60	\$150
HI-Q CF-901 High Volume (0-12 CFM) Pump	\$64	\$160
HI-Q 1023CV Low Volume (0-200 LPM) Pump	\$80	\$200
HI-Q PSU Low Volume (0-200 LPM) Mobile Cart Pump	\$120	\$300
RADeCO H-809V High Volume (0-8 CFM) Pump	\$66	\$165
RADeCO H-810 High Volume (0-9 CFM) Pump	\$66	\$165
Environmental Housing for Air Sampler (5' Doghouse)	\$60	\$150
Air Samplers		
F&J D-550 Range is 5 to 50 CFM, 140 to 1400 LPM	\$100	\$250
F&J D-812 Range is 0.5 to 4 CFM, 14 to 115 LPM	\$100	\$250
F&J D-814 Range is 2 to 14 CFM, 56 to 400 LPM	\$100	\$250

All of above rates are based on quantity of one (1) each. Feel free to contact us for volume or long term discounts.



**SEC Instrumentation Lab** (800) 905-0501 or (865) 392-1387 10512 Lexington Drive, Suite 200 Knoxville, TN 37932

#### Sabrina Hall

Industrial Hygiene Instrumentation shall@perma-fix.com **Carl Hall** 

Radiological Instrumentation chall@perma-fix.com

#### Javid Kelley

VP Nuclear Services, Senior Technical Officer javid.kelley@perma-fix.com