



●
PRECISE, ACCURATE
 An industry standard for independently
 verifying prescribed patient dose

HDR 1000 PLUS WELL CHAMBER

● **CONFIDENCE IN BRACHYTHERAPY SOURCE CALIBRATION**

The HDR 1000 Plus Well Chamber is an air-communicating chamber, so there is no inaccuracy due to an undetected gas leak as in a pressurized chamber. The HDR 1000 Plus is ideal for low dose rate and high dose rate brachytherapy. Source holders are available for most existing sources.

● **WHY PERFORM INDEPENDENT VERIFICATION?**

AAPM TG 56 & TG 40, IAEA TRS 398, and many manufacturers of brachytherapy seeds recommend independent verification of their source strengths. Centers in the U.S. may also be forgoing reimbursement income by not performing independent verifications. CPT code 77370 provides reimbursement for on-site calibration of brachytherapy seeds. To receive the reimbursement a facility is required to have a NIST traceable calibration for instruments like the HDR 1000 Plus or IVB 1000 Well Chambers for on-site calibrations.

Features

International Acclaim

- HDR 1000 Plus has been performance validated in more than 50 scientific presentations and is used by Primary and Secondary Radiation Standards Laboratories throughout the world

Assurance is Confidence

- Precise and accurate calibration of HDR and LDR Iridium, Iodine, Palladium, Cesium, and Strontium brachytherapy source activities. Calibrates individual and multiple sources.

Wide Range of Uses

- Outstanding versatility, use one chamber for many isotopes
- Source holders available for most existing sources Including: Cesium, Iridium, HDR Iridium, LDR Iridium, Iridium Wire, Iodine, Palladium

HDR 1000 PLUS WELL CHAMBER (REF 90008) SPECIFICATIONS

ADCL CALIBRATIONS	HDR ¹⁹² Ir and/or LDR radionuclides from various manufacturers as requested																			
ACTIVE VOLUME	245 cm ³																			
CONNECTOR	Two lug triax BNC (standard) TNC, Type M, or BNC + Banana (optional)																			
RANGE	10 U to 80 MU 0.01 mCi to 20 Ci																			
CABLE	3 ft, 1 m																			
BIAS VOLTAGE	± 300 volts, typical																			
LEAKAGE	Less than 50 fA																			
STABILITY	0.2% (Reproducibility over 2 years)																			
RESPONSE	± 0.5% over 25 mm at center of axis																			
SENSITIVITY	<table border="1"> <thead> <tr> <th>SOURCE</th> <th>Current to Air Kerma Strength (U=1uGym²/h)</th> <th>Current to Apparent Activity</th> </tr> </thead> <tbody> <tr> <td>HDR Iridium:</td> <td>2.1 pA/U</td> <td>8.6 nA/Ci</td> </tr> <tr> <td>Cesium:</td> <td>2.0 pA/U</td> <td>5.6 nA/Ci</td> </tr> <tr> <td>LDR Iridium:</td> <td>2.3 pA/U</td> <td>9.1 nA/Ci</td> </tr> <tr> <td>Iodine:</td> <td>4.3 pA/U</td> <td>5.4 nA/Ci</td> </tr> <tr> <td>Palladium:</td> <td>2.1 pA/U</td> <td>2.4 nA/Ci</td> </tr> </tbody> </table>		SOURCE	Current to Air Kerma Strength (U=1uGym ² /h)	Current to Apparent Activity	HDR Iridium:	2.1 pA/U	8.6 nA/Ci	Cesium:	2.0 pA/U	5.6 nA/Ci	LDR Iridium:	2.3 pA/U	9.1 nA/Ci	Iodine:	4.3 pA/U	5.4 nA/Ci	Palladium:	2.1 pA/U	2.4 nA/Ci
SOURCE	Current to Air Kerma Strength (U=1uGym ² /h)	Current to Apparent Activity																		
HDR Iridium:	2.1 pA/U	8.6 nA/Ci																		
Cesium:	2.0 pA/U	5.6 nA/Ci																		
LDR Iridium:	2.3 pA/U	9.1 nA/Ci																		
Iodine:	4.3 pA/U	5.4 nA/Ci																		
Palladium:	2.1 pA/U	2.4 nA/Ci																		
A_{ion}	0.9996, typical																			
ACCESSORIES	Case (REF 50004) and source holder of choice included Wall mount accessory (REF 70007) (5) Interlocking 1" lead rings (REF 70125) Carrying case for any Comprehensive Calibration System (REF 70012)																			
DIMENSIONS	<i>Height:</i> 6.1 in, 15.6 cm <i>Insert Diameter:</i> 1.4 in, 3.5 cm <i>Diameter:</i> 4 in, 10.2 cm <i>Insert Height:</i> 4.8 in, 12.1 cm <i>Weight:</i> 6.1 lbs, 2.7 kg																			

Specifications subject to change without notice.

ORDERING
INFORMATION

HDR 1000 PLUS WELL CHAMBER REF 90008