

Calibration Certificate for - GM 41

Customer: Shanghai Flying Trading Company

Serial No.: 4113-035

Specification:

Measuring range: 50µSv/h ÷ 1 Sv/h

Energy range: 50 Kev ÷ 3 Mev

Sensitivity: 200 cps/ mSv/ h

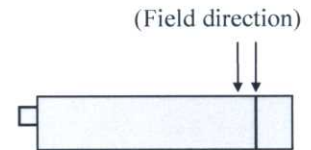
Conditions :

Test source : Cs <sup>137</sup> (190mCi+1200Ci)

Results: Max. Allowed Error ± 10 %

Notes:

1. Error [%] = {(reading) - (calculated field) / (calculated field)} × 100
2. Recommended calibration frequency: Once a year.



<i>Calculated</i>	<i>Units</i>	<i>Reading</i>	<i>Error</i>	<i>Comments</i>
<i>Field</i>			<i>[%]</i>	
69	[µSv/h]	74	7.25	linearity
1.21	[mSv/h]	1.23	1.65	linearity
3.47	[mSv/h]	3.52	1.44	linearity
<b>6.74</b>	[mSv/h]	<b>ok</b>	-----	<b>calibration point</b>
229	[mSv/h]	232	1.31	linearity
427	[mSv/h]	441	3.28	linearity
545	[mSv/h]	570	4.59	linearity
>1000	[mSv/h]	OFLO	-----	<b>Software Overflow</b>
>2200	[mSv/h]	OFLO	-----	<b>Hardware Overflow</b>
>100	Sv/h	OFLO	-----	<b>Overload check</b>



Calibrated by: Motti

Date: February 18, 2015

Due: February 18, 2016

Operation checked by: TEDGI

Date: February 18, 2015

Approved by: TEDGI



The actual exposure rate was measured by calibration of the SSDL reference ionization chambers at Physikalisch-Technische Bundesanstalt PSDL (6.62 30/04K) and in compliance with the US NCRP 112 requirements



QUALITY CONTROL – FINAL INSPECTION



CUSTOMER: Shanghai Flying Trading Company

INSTRUMENT: GM -41

SERIAL No: 4113-035

MODEL No: BAK-1190

Functional and Electrical test: ✓  
 Calibration Certificate: ✓  
 Rate units: μSv/h

ENVIRONMENTAL TESTS  
 1. Temperature : ✓  
 2. Vibration : ✓

CHECKED BY: ASAF

DATE: February 18, 2015

**Q.A. TESTS**

Test Source	Distance	Expected value±15%		Result	
		mR/h	μSv/h	mR/h	μSv/h
Cs 137 - 20 μci Rs 111	in contact	0	80		85
Background check		< 0.1	< 1		0

Visual check: ✓  
 Operation check: ✓  
 150 m' cable check: ✓

CHECKED BY: ASAF

DATE: February 18, 2015

DWG. No:	P.C. No	DATE	Det. Bd
10728-2	1541	14.04.97	1008-046

ORDER: FL15M012

ORDER Ack: 15090045

APPROVED BY: TEDGI

DATE: February 18, 2015



The actual exposure rate was measured by calibration of the SSDL reference ionization chambers at Physikalisch-Technische Bundesanstalt PSDL (6.62 30/04K) and in compliance with the US NCRP 112 requirements





## CERTIFICATE OF WARRANTY

**MODEL NO.: BAK-1190**

**INSTRUMENT: GM-41**

**SERIAL NO.: 4113-035**

**MANUFACTURED BY ROTEM INDUSTRIES LTD. (HEREINAFTER "the instrument")**

**SOLD TO: Shanghai Flying Trading Company (HEREINAFTER "the warranty holder")**

We, the undersigned, ROTEM INDUSTRIES LTD., warrants that all products manufactured and supplied by ROTEM shall be free from defects in design, materials and workmanship and shall comply with ROTEM's technical specification when installed, in service and operated within the specifications for which they were designed. ROTEM will replace or repair any equipment or parts returned to it provided that investigation and factory inspection discloses that such defect developed under normal and proper use by the original user. ROTEM's liability under this warranty is limited to such replacement and repairs and shall not be held liable in any form of action for incidental or consequential damages to property or person.

The foregoing is in lieu of all other warranties, express or implied, including the warranties of merchantability and fitness for particular purpose.

1. Obligations under this warranty shall be limited to repairing or replacing of any instrument returned to our facility within 12 months of delivery to the original purchaser, provided prior authorization for such return has been given by an authorized representative of ROTEM.  
The warranty period for G.M. Pancake Tubes, Scintillators and Photomultipliers is three months only.
2. The warranty is for repairs required for normal working conditions of the instrument as determined by ROTEM Industries Ltd., during the warranty period at no charge. This period of warranty also includes provision of all necessary spare parts at no charge for repair of the instrument.
3. This warranty will not be valid in the following cases:
  - 3.1 The breakdown or defect was caused by using the instrument not according to Manufacturer's instructions, or by unreasonable use, or breakage as a result of a Blow or fall to the instrument.
  - 3.2 The breakdown is caused by breakdowns or disturbances in the electricity network.
  - 3.3 The instrument was opened, fixed or tampered with, or changes were made to the Instrument by a person who did not receive ROTEM's authority to do so.
  - 3.4 The breakdown was caused intentionally or negligently.
  - 3.5 The breakdown is a result of external factors, such as fire, breakage or force majeure.
4. This warranty does not include the expendable components such as batteries and/or other energy sources, radiation emitting substances and such like.

ROTEM Industries Ltd.

Date: February 18, 2015



The actual exposure rate was measured by calibration of the SSDL reference ionization chambers at Physikalisch-Technische Bundesanstalt PSDL (6.62 30/04K) and in compliance with the US NCRP 112 requirements