



U.S. Department  
of Transportation

Pipeline and  
Hazardous Materials  
Safety Administration

East Building, PHH-23  
1200 New Jersey Ave, SE  
Washington, D.C. 20590

IAEA CERTIFICATE OF COMPETENT AUTHORITY  
SPECIAL FORM RADIOACTIVE MATERIALS

CERTIFICATE USA/0722/S-96, REVISION 3

This certifies that the source described has been demonstrated to meet the regulatory requirements for special form radioactive material as prescribed in the regulations of the International Atomic Energy Agency<sup>1</sup> and the United States of America<sup>2</sup> for the transport of radioactive material.

1. Source Identification - QSA Global, Inc. Model X0779 Source Assembly (Manufactured on or after July 5, 1988).
2. Source Description - Cylindrical single encapsulation made of stainless steel and tungsten inert gas or laser seal welded. Approximate outer dimensions of the single encapsulation are 3.0 mm (0.12 in.) in diameter and 26.3 mm (1.04 in.) in length. Nominal wall thickness is 0.15 mm (0.006 in.). The single encapsulation must be installed inside the rectangular shutter housing secured with screws welded in-place. Approximate outside dimensions of the shutter housing are 22.0 mm (0.87 in.) in height, 65.0 mm (2.56 in.) in width, and 45.0 mm (1.77 in.) in length. Construction shall be in accordance with attached AEA Technology QSA, Inc. Drawing Nos. RBA62007, Rev. A and RBA61601, Rev. A.
3. Radioactive Contents - No more than 7.4 GBq (200.0 mCi) of Americium-241. The Am-241 is in the form of an oxide incorporated into a ceramic enamel.

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<sup>1</sup> "Regulations for the Safe Transport of Radioactive Material, 2012 Edition, No. SSR-6" published by the International Atomic Energy Agency (IAEA), Vienna, Austria.

<sup>2</sup> Title 49, Code of Federal Regulations, Parts 100-199, United States of America.

**CERTIFICATE USA/0722/S-96, REVISION 3**

4. Management System Activities - Records of Management System activities required by Paragraph 306 of the IAEA regulations shall be maintained and made available to the authorized officials for at least three years after the last shipment authorized by this certificate. Consignors in the United States exporting shipments under this certificate shall satisfy the requirements of Subpart H of 10 CFR 71.
  
5. Expiration Date - This certificate expires on August 29, 2025. Previous editions which have not reached their expiration date may continue to be used.

This certificate is issued in accordance with paragraph(s) 804 of the IAEA Regulations and Section 173.476 of Title 49 of the Code of Federal Regulations, in response to the July 1, 2020 petition by QSA Global, Inc., Burlington, MA, and in consideration of other information on file in this Office.

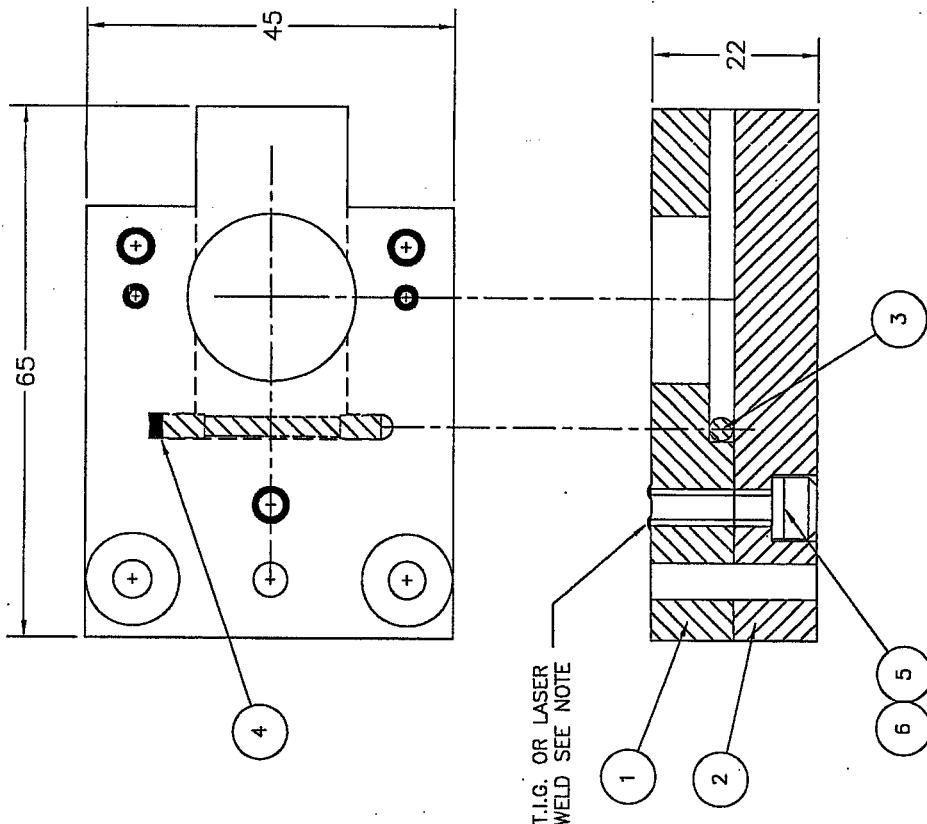
Certified By:



William Schoonover  
Associate Administrator for Hazardous  
Materials Safety

August 05, 2020  
(DATE)

Revision 3 - Issued to extend the expiration date.



T.I.G. OR LASER WELD SEE NOTE

NOTE: WELD SCREW TO BODY IN THREE POSITIONS AND AFTER INSERTION OF M4x14 SCREWS.

NOTE: DIMENSIONS ARE IN MILLIMETERS.  
 1) DIMENSIONS ARE IN MILLIMETERS.  
 2) TOLERANCE:  
 X ± 2  
 X.X ± 0.2

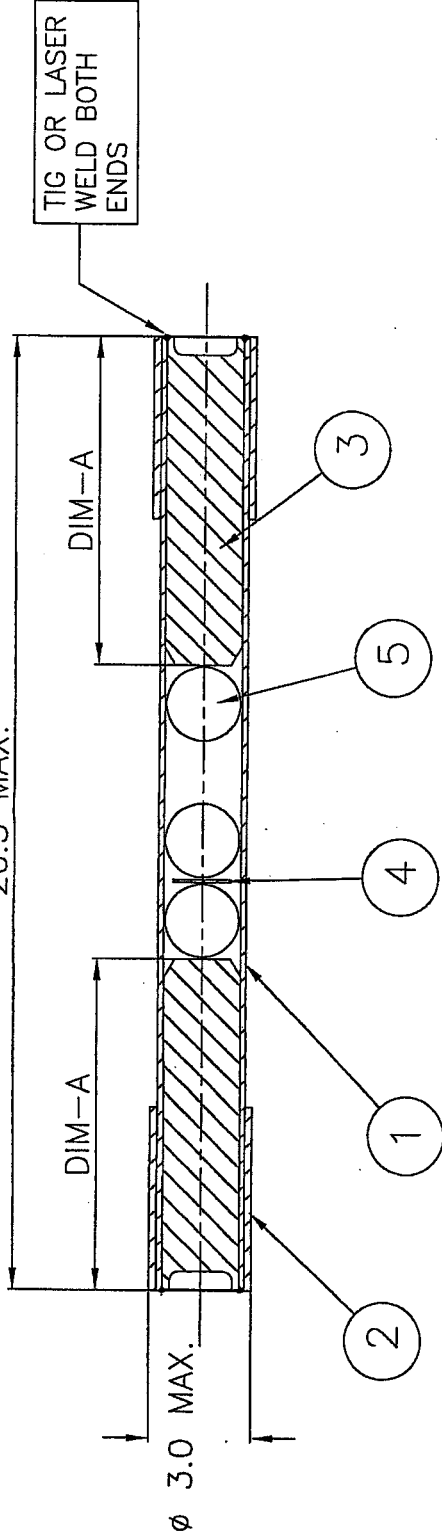
ITEM #	DESCRIPTION	QTY.
1	SHUTTER UPPER SECTION, STAINLESS STEEL	1
2	SHUTTER LOWER SECTION, STAINLESS STEEL	1
3	X1122 SOURCE CAPSULE, STAINLESS STEEL	1
4	ANTI-RATTLE SPRING, STAINLESS STEEL	1
5	M4 x 14 SCREW, STEEL	3
6	M4 SPRING WASHER, STEEL	1



DESCRIPTIVE DRAWING

APPROVALS	DATE	TITLE
<i>D. P. ...</i>	7 Nov. 05	SHUTTER ASSEMBLY X0779
<i>R. ...</i>	11/09/05	
UNLESS OTHERWISE SPECIFIED DIMENSIONS IN INCHES		
TOLERANCES:		
FRACTIONS ± 1/8		
X.X ± 0.12		
X.XX ± 0.06		
X.XXX ± 0.020		
SIZE	DWG. NO.	SHEET 1 OF 1
B	RBA62007	A
SCALE:	NTS	
ERF#	1164	

26.3 MAX.



TIG OR LASER  
WELD BOTH  
ENDS

DIM-A

DIM-A

φ 3.0 MAX.

- 1
- 2
- 3
- 4
- 5

NOTE:

1) DIMENSIONS ARE IN MILLIMETERS.

2) SLEEVES, ITEM 2, TO BE ATTACHED TO BODY  
, ITEM 1, WITH EPOXY RESIN.

ITEM #	DESCRIPTION	QTY.
1	BODY, STAINLESS STEEL	1
2	SLEEVE, STAINLESS STEEL	2
3	PLUG, STAINLESS STEEL	2
4	CERAMIC FIBER PACKING	A/R
5	Am241 GLASS BEADS	A/R

TYPE	DIM-A
X1122/1	5
X1122/2	9

APPROVALS	DATE	 40 NORTH AVE. BURLINGTON, MA 01803	DESCRIPTIVE DRAWING
<i>D. Pri</i>	7 Nov 07		
<i>A. Collier</i>	7 Nov 07	TITLE	ASSEMBLY DRAWING CAPSULE X1122 / 1 & / 2
UNLESS OTHERWISE SPECIFIED DIMENSIONS IN INCHES TOLERANCES:		SIZE	B
FRACTIONS ± 1/8 X.X ± 0.12 X.XX ± 0.06 X.XXX ± 0.020		DWG. NO.	RBA61601
ERF#		SCALE:	N.T.S. SHEET 1 OF 1
1164			A



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**CERTIFICATE NUMBER:** USA/0722/S-96

**ORIGINAL REGISTRANT(S) :**

QSA Global, Inc.  
30 North Avenue  
Burlington, MA, 01803  
USA